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OF

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EDITED BY

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OF PARIS ; COR. MEM. OF THE ZOOLOGICAL SOC. OF LONDON, AND OF THE
ROYAL SOCIETIES OF MARSEILLES AND CAEN ; OF THE ACADEMY
OF NATURAL SCIENCES OF PHILADELPHIA ; OF THE
PHILOSOPHICAL SOCIETY OF GENEVA ; OF
THE ALBANY INSTITUTE, &c.

VOL. VII.—PART I.

**JANUARY TO JUNE,
1838.**

" It will flourish, if naturalists, chemists, antiquaries, philologers, and men of science, in different parts of *Asia* will commit their observations to writing, and send them to the Asiatic Society at Calcutta ; it will languish, if such communications shall be long intermitted ; and will die away, if they shall entirely cease."

SIR WM. JONES.

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1838.



P R E F A C E.

IN conformity with the practice observed in the past conduct of this Journal, we submit with the December number for the year 1838, a brief exposition of the circumstances, adverse or favorable, under which it has been carried on. But as this is the last volume of the series, conducted by the Editor who has heretofore addressed his subscribers in this form, it is right that our review should embrace the whole period of his conduct of the work.

It is known to all our readers, that the idea of establishing in India a periodical work whose pages should be devoted to Science, originated with the late Captain HERBERT, who under the name of *Gleanings of Science* issued monthly a few sheets, professing to contain, with one or two original communications, selected extracts from scientific works of Europe—the selection being confined to such as, except through a reprint in India, were likely to escape the perusal of the curious and interested. The little Periodical thus modestly put forth found early favor in Bengal: one cause of which may have been, that there existed at that time no channel, through which the discoveries and speculations of the learned and ingenious could find their way to the public, except as separate works, which for short treatises was out of the question, or through the learned pages of the Asiatic Researches, of which the volumes appeared after very uncertain periods, and latterly at very long intervals.

The monthly Periodical issued under the name of the *Gleanings of Science*, having been conducted by Captain HERBERT for three years, with very creditable industry and judgment, and with corresponding success, was transferred by him to Mr. JAMES PRINSEP, consequently upon his obtaining employment at a distance from Calcutta. The Periodical continued, for some time after the change of Editor, to win its way to public favor under the same name; and, as the subscription list extended, sheets and extra plates were added to its bulk—the new conduc-



tor professing, like his predecessor, to have no desire to make money by the publication, but being determined, and to this day he has adhered to the determination, to devote the entire proceeds of an increasing circulation, to the extension of its utility, by improvements in the getting up, and additions to the quantity of matter circulated through its means.

The Periodical received for some years much encouragement through an arrangement made with the Government of Bengal, by which it was exempted from postage, under the condition of publishing each month one sheet of Dr. BUCHANAN'S Statistical Reports of this Presidency. The arrangement continued till June 1834, when Dr. BUCHANAN'S Report upon the district of *Dinajpur* being completed, the indulgence of free circulation in the interior was withdrawn, and the further publication of these statistical reports as an Appendix to the Journal was stopped.

There is no doubt that the arrangement was an unusual one for a Government to make, and as it proved embarrassing in the precedent it established, and in the claims to which it gave rise in other Publications professing religious and other praise-worthy objects, the withdrawal has never been a subject of complaint.

The Periodical had, however, while this privilege lasted, obtained its advantage in making its existence known throughout India, and thus in inviting the scientific and the speculative to avail themselves of its pages for the publication of the results of their studies. We gratefully acknowledge that the success of the Journal has been mainly owing to the manner in which this invitation has been responded to.

The burthen of postage under the Post-office Rules, which existed before the Act for equalizing them throughout India was passed in 1837, bore very heavily on distant subscribers: nevertheless the loss of the indulgence of free transmission occasioned no diminution of the subscription list of the Journal, nor was this affected by the further change of an increased subscription, which became indispensable consequently upon a large augmentation of the number of pages and plates. On the contrary it has been found necessary to add continually to the number of impressions ordered from the printer,



and the demand for early numbers for the completion of sets has far exceeded the means possessed of furnishing them. The series of the *Gleanings* is quite out of print, so much so as to have led the Editor to contemplate a reprint of its most valuable original articles: and even the volumes of the Journal for the years from 1832 to 1835, that is for the first three years after the Periodical assumed the title of *Journal of the Asiatic Society*, are procurable now with extreme difficulty, our Publishers having no spare copies on hand.

We close the year 1838 with a subscription list of 325 names, besides the copies furnished to Government and to the Asiatic Society, or exchanged with other periodicals, constituting a circulation of upwards of 500, the good-will of which we freely make over to the conductors of the new series, in the confident hope, that they will worthily follow in the same career, and through their exertions daily win fresh proofs of the favor and confidence of the public.

The retrospect of the past management is to us a source of pride and much satisfaction. The advance that has been made in every branch of Science and of Indian Research, since the Journal fell into the late Editor's hands, will not fail to strike every observer; and few will deny to himself and to his Periodical, a large share of the merit of producing this great result.

Wide indeed has been the range of subjects which have been illustrated in the volumes of this Journal. In Astronomy no phenomenon has appeared, that has not been fully explained with its calculations. In Natural History the Journal has been enriched by the valuable contributions of Colonel SYKES, of HODGSON and Dr. EVANS, of Drs. GRIFFITH, McCLELLAND, PEARSON, FALCONER and HELFER, of BENSON and HUTTON, and these with many others have through our pages devoted themselves to the classification of known objects, or to the description of new specimens, so as to render the Journal a necessary book of reference to Zoologists, Botanists, Conchologists, Entomologists, and to the learned in almost every other branch of this Department of Science.

In Chemistry Dr. O'SHAUGHNESSY, to whom the editorial chair is now resigned, Dr. PEARSON, and Mr. PIDDINGTON have combined with the late Editor himself to apply every kind of



analysis to the investigation of substances, and the Journal has been a perfect record of new discoveries and ingenious results in that department.

In Geography there will be found a greater variety of new routes, of surveys, and of accurate intelligence regarding countries imperfectly known, than any other work of equal duration and bulk can boast of possessing.

The Geology of India has been investigated and portrayed with a zeal that has been acknowledged by the Societies, and by the Learned of Europe, and the fossil remains that have been extracted from various localities, from the sub-*Himalaya* and from *Ava*, and from the *Nerbudda* valley, have excited the astonishment and admiration of those whose lives were devoted to this branch of Science, and who first through the pages of this Journal became acquainted with the existence of the new animals discovered. In this line the Journal has been most indebted to Colonel COLVIN, and Captain CAUTLEY of the Bengal Engineers, to Drs. FALCONER and SPILSBURY, and Colonel BURNEY; and Serjeant DEAN of the Sappers and Miners, has been by no means the least worthy of its contributors.

In Statistics many subjects have been investigated accurately, and with effect: and the manners and customs of many new tribes have been illustrated and described with truth and liveliness, so as to make the Journal a pleasant travelling companion to adventurous voyagers, and a work of useful reference to functionaries in the interior.

In the department of Languages the Journal has done much. Grammars and Vocabularies of several new dialects have been contributed by Lieut. LEECH, and by others before him. In Navigation some important papers, illustrative of the state of this art in the middle ages, have been contributed by Baron VON HAMMER, now COUNT PURGSTALL, from the centre of Germany, and this is far from being the only proof we could adduce of the favor won for the Journal amongst the learned of the European Continent.

But much as has been done in all these departments of Philosophy and useful Science, it is not for these, or through these, that the memory of the Journal will principally be cherished.



Since it was established as the channel for giving to the world original discoveries in the East, there has been opened an entirely new field of research, in the Buddhistical annals of periods antecedent to the spread of Brahminical doctrines with the Sanskrit language ; and through the successful cultivation of this field advances have been made in restoring the early History of India, which throw into the shade the investigations of the great men of the preceding thirty years. In this department the Honorable Mr. TURNOUR of *Ceylon* stands pre-eminently conspicuous, and Mr. HODGSON of *Nipal*, with Mr. CSOMA DE KÖRÖS, the learned author of the Thibetan Dictionary and Grammar, have worthily prosecuted the same studies. They have been illustrated and advanced by incidental notices from the Burmese and Siamese records, which through the Journal have been opened to the world by Col. BURNEY, Captain Low, and others, and the results obtained from all these sources have been established by the crowning discovery of all, the key to the ancient inscriptions of ASOKA in *Pali*, the merit of which rests with our Editor himself.

That our Journal should be the fortunate Publication to give forth so much of novel interest in relation to the History and Antiquities of the country to which it is devoted, may well be a source of pride, but its claims upon the learned do not stop here. The illustrations of the ancient History of India would have been incomplete, if the link had not been rivetted to connect its annals with the coeval authentic histories of Ancient Greece and Egypt. This too has been accomplished in the pages of our Journal, and mainly through the personal influence and discoveries of its Editor, acting upon the zeal and spirit of research which existed, or was excited in others.

Through the Journal attention was first drawn to the coins of past ages, as a means of following backward the series of Indian Kings and Dynasties. Genl. VENTURA, Mr. MASSON, Sir A. BURNES, and others, have in consequence devoted themselves to the collection of coins and relics in the countries which were the scene of Grecian enterprise ; and Col. STACY, Dr. SWINNEY, Capt. CUNNINGHAM, Mr. TREGEAR, and many more have pursued the same line in different parts of India, placing themselves all in communication with our Editor, that their dis-



compelled, as will be found recorded in the pages of this Journal, to quit the country suddenly in the ship *Herefordshire* in the early part of the month of November.

His friends and brothers are now anxiously expecting to receive from the Cape of Good Hope, the first accounts of the effect of the sea-voyage upon his health. In the midst of their anxiety, they may be excused for the apparent egotism, of placing so much of eulogy, and of personal memoir, in the Preface to the last volume of his series of the Journal.

CALCUTTA,
February, 1839. }



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ERRATA.

In the December No. 1837.

Page

- 992, for 'impossible,' read 'impassable,'
 997, for 'he permitted,' read 'be permitted.'
 1076, for 'or Cuttack,' read 'of Cuttack.'
 1079, for 'detached of yore,' read 'detached figures.'
 1078, note, for 'meet any attention,' read 'merit any attention.'
 1079, line 10, alter the stops thus. 'Khandgiri has but few caves. On the summit there is, &c.'

Page line

- 37, 12, for 'सुचारुगिरि,' read 'गिरि.'
 43, 24, for 'वेशविलाशिनी,' read 'वेशविलासिनी.'
 — 26, for 'मुक्ति,' read 'भुक्ति.'
 44, 13, for 'साभूचि,' read 'साभवि.'
 45, 14, dele 'धत,' after 'ध्यात.'
 46, 23, for 'दुतीय,' read 'दि,' and dele -
 249, 21, notes, for 'सुपः,' read 'सूप.'
 250, 6, ,, for 'अनशयनं,' read 'अनुशयनं.'
 — — ,, for 'स्यातू,' read 'स्यात्.'
 — 7, ,, for 'निःक्षम भूवेत्,' read 'निःक्षमो भवेत्.'
 252, 15, ,, after 'दृश्यति,' insert '(पश्यति).'
 — 18, ,, for 'खे खे,' read 'खे खे.'
 253, 13, ,, after 'मञ्जनया,' dele :
 — 23, ,, after 'वहि,' insert :
 255, 6, ,, after 'विविधानी,' insert '(विविदुषी).'
 — 23, ,, after 'व श्रेयु,' insert :
 — 26, ,, for 'भावसुद्धि,' read 'भावशुद्धि.'
 259, 4, from below for 'प्रविजितान्,' read 'प्रव्रजितान्.'
 263, 24, for 'भेत,' read 'भूत.'
 273, 2, from below for 'निर्जित्य,' read 'निर्जित्य.'
 277, 22, for 'इहतेपारतः,' read 'इहतःपरतः.'
 278, 31, read 'तिष्ठेत,' or 'छेयात्.'
 442, 41, for 'दुवरः,' read 'दुर्वारः.'
 443, 15, for 'इयं,' read 'अयं.'
 — 30, for 'दृष्यते,' read 'दृश्यते.'
 — 32, for 'नतिः,' read 'नीतिः.'
 444, 25, for 'इच्छितयः,' read 'इच्छितयः.'
 — — for 'एहंयः,' read 'एह्यः.'



Page line

- 444, 29, for 'उद्गतसंचलित,' read 'उद्गतसंचलितं.'
 445, 33, for 'सापिच,' read 'सेापिच.'
 446, 26, for 'यज,' read 'यज्ञ.'
 — 34, for 'आद्यासेयुः,' read 'आद्यास्यु.'
 464, 5, from bottom, for 'variety,' read 'rarity.'
 466, 33, from top, for 'two,' read 'the.'
 — 34, from top, for 'two,' read 'so.'
 536, 2, for 'MacCullack,' read 'McCulloch.'
 537, 6, from bottom, for 'Sheer Muhammad Minad Bey,' read 'Mīr Muham-
 med Murād Bey.'—(By some inadvertence this form was sent to press
 before it had been read by the editor.)
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I.—*History of Cooch Behár, being an extract of a passage from Dr. BUCHANAN'S Account of Rungpur (Rangapura)*.*

[Revised and communicated by Major F. JENKINS.]

The history of this district is perhaps involved in still greater obscurity than that of *Dinajpur*. Almost the whole of it is included in the ancient Hindu territory of *Kamrup*, which extends east from the *Kurotoya* where it joined the kingdom of *Motsyo*, to† *Dikkorbasini* a river of *Assam*, which enters the *Brohmoputro* a little to the east of the eastern *Kamalchya*, which is said to be fourteen days' journey by water above *Jorehat* the present capital of the kingdom. I have not been able to learn, that the ancient Hindus mention any kingdom as intervening between *Kamrup* and *China*. Those whom I have consulted seem to think that *Kamrup* is bounded on the east by *Chin*; by which, however, it must be observed, is probably meant the country between the Indian and Chinese empires, for as *ABUL FAZIL* justly observes, the Chinese empire is the *Maha Chin* of the Hindus. He indeed calls *Pegu* the *China* of the Hindus; but in this he is only to be considered as mentioning for the whole, what was then the principal kingdom, as now we might say that the empire of *Ava* is the proper *China* of the Hindus; and in fact it now separates *Kamrup* from the Chinese or *Maha Chin*. On the north *Kamrup* extends to *Kongjogiri*, the frontier of *Madro*, the kingdom of *Sailyo*, which comprehends *Bhotan*; I have not, however, been able to learn where the mountain is placed, and the *Bhoteas* seem to have made large encroachments on the whole northern frontier of *Kamrup*. The southern boundary of *Kamrup* frontier of *Kamrup*, is

* *BUCHANAN'S* orthography is retained: he uses the short *o* for *a*, being the Bengali pronuniation.—ED.

† This is the name of a temple on the *Brahmaputra* above *Sadiyá*, and nearly where the river issues from the hills.

where *Lakhya* river separates from the *Brohmoputro*, and there it is bounded by the country called *Bunggo*. *Kamrup* according to this description includes a portion of *Moymunsing* (north part of *Dacca R.*) and of *Srihotto* (*Silhet B.*) together with *Monipur*, *Jaintiya*, *Kachar*, and *Assam*.

The earliest tradition concerning the history of *Kamrup* is that it was given by KRISHNO to NOROK, the son of the earth, (*Prithivi*.) This NOROK, although an infidel (*osur*) was for some time a favorite of the god, who appointed him guardian (*dwarpal*) of the temple of *Kamakhya* (granter of pleasure) who naturally presided over the region of desire, (*Kamrup*). This deity is by the Hindus considered as female, and her temple situated near *Gohati*, the place where NOROK resided, is still much frequented.

Kamrup is said to have been then divided into four *peths* or portions, which may naturally be expected to have appellations suitable to its name and tutelary deity. They are accordingly called *Kam*, *Rotno*, *Moni* and *Yoni peths*, alluding to desire, beauty and some circumstances not unconnected with these qualities, which our customs do not admit to be mentioned with the plainness that is allowed in the sacred languages of the east. In fact the country by the natives is considered as the principal seat of amorous delight, and a great indulgence is considered as allowable. I have not learned the boundaries of these divisions, but am told that *Rotno Peth* is the country now called *Vihar*.

NOROK did not long merit the favor of KRISHNO, being a great oppressor and a worshipper of the rival god SIB. He was put to death, and was succeeded by his son BHOGGODATTO. At the time of the wars which are said to have placed YUDHISHTHER on the throne of India, the prince engaged in the great contest on the losing side, and followed the fortunes of DURYODHON. There can be little doubt that this is the same person with the BHUGRUT of Mr. GLADWIN's translation of the *Ayeen Akbery*, "who came to the assistance of JIRJODHUN, and gallantly fell in the war of the *Mahabharut*." By ABUL FAZIL this prince is said to have been of the *Khyetri* (*Khyotrio*) caste, and this is supported by the opinion of the brahmans; but here a considerable difficulty occurs; for it is generally allowed, that BHOGGODATTO was the son of NOROK, who was not a Hindu. We shall, however, soon see that in *Kamrup* many other personages have been adopted into the princely race, whose claims to a Hindu descent are at best exceedingly doubtful.

BHOGGODATTO is said to have usually resided at *Gowahati*. The king of *Kamrup* is said occasionally to have fled from the bustle and cares of his capital, and to have sought the pleasures of retirement

at *Runggopur*, from whence its name, signifying the abode of pleasure, is derived. No traces of any buildings by *BHOGGODATTO* or his family remain in this district, nor is it probable that any remain in *Assam*, as the princes of the eastern parts of *Kamrup* continue even to this day, to dwell in huts; nor is there any reason to suppose, that his accommodation was superior; while his power, and probably the thickness of his forest, rendered fortifications towards the west unnecessary.

In the great war *BHOGGODATTO* fell by the hands of *ORJUN*, brother of *YUDHISHTHER*, but according to the *Ayeen Akbery* twenty-three princes of the same family continued to govern after his death. The authority of this work is, however, diminished by its supposing that these princes governed the whole of Bengal, which seems entirely without foundation. It is, however, very likely, and is said indeed to be mentioned in the *Purans*, that for some time the descendants of *BHOGGODATTO* retained the government of *Kamrup*. I cannot indeed adopt the chronology, which places *YUDHISHTHER* about 3200 years before the birth of Christ; on the contrary I am persuaded that this prince lived considerably after the time of *ALEXANDER*, for in every part of India there remain traces of the family of *YUDHISHTHER*, or of the princes who were his contemporaries, of many dynasties that have governed since his time, but all these later dynasties, so far as I have learned, may be ascertained to be of a comparatively late period; and making every possible allowance for the reigns of the families of *YUDHISHTHER* and of the dynasties that have succeeded, we shall not be able to place the former much beyond the time of *AUGUSTUS*. I am happy to acknowledge that I have derived this manner of reasoning on the subjects from a conversation with my worthy friend Major *MACKENZIE* of *Madras*, who has formed more accurate notions on Indian History than any person whose opinions I know,—notions founded on a careful investigation of the remains of antiquity, and not on the fictions of Indian poets, who in the extravagance of invention exceed even the fertile genius of Greece.

In the part of the *Yogini Tontro* which I have procured, and which is considered as the highest authority concerning every thing to *Kamrup*, the pandit of the mission says that there is no mention of *BHOGGODATTO*, but that the god *SIB* prophesies that after the infidel *NOROK*, and at the commencement of the era of *Saka*, that is about the end of the 1st century of our era, there would be *Sudro* kings of *Kamrup*. The first rája mentioned is *DWYESWOR*, in whose time the worship of *Kameswori* or *Kamakhya*, the knowledge of which had hitherto been confined to the learned, would be published even to the vulgar, and this would happen at the very beginning of the era of *Saka*, or in the year of

our era 76. This rája is said to have been of the tribe called in the Songskrito language *Dhwor*, which is usually applied to the *Kaibortos* of Bengal; but it may be doubted, whether the prince belonged to that tribe which is not one of *Kamrup*. The worship of the *linga* according to the prophecy would begin in the 19th year of *Saka*; some indefinite time after that period, a brahman born of the *Korotoya* river and named *NOGOSONKOR*, would be king, and extend the doctrine. After him, but at what interval is not mentioned, would be a rája named *JOLPESWAR*, who would still further encourage that worship, and who would build the celebrated temple of *Jolpis*. Very considerable ruins are at no great distance from that place as will be hereafter described; but they are ascribed to a *Prithu*, who may, however, have been a person of the same family.

This *Prithu*, rája from the size of his capital, and the numerous works raised in the vicinity by various dependents and connections of the court, must have governed a large extent of country, and for a considerable period of time. Although he is in some measure an object of worship among the neighbouring Hindus, they have few traditions concerning the place from whence he came, nor at what period he lived; and I heard it only mentioned by one old man, that he governed before the time of the dynasty which will be next mentioned.

As usual he is considered as having been a very holy personage, who was so much afraid of having his purity sullied, that, on the approach of an abominable tribe of impure feeders named *Kichok*, he threw himself into a tank, and was followed by all his guards, so that the town was given up to plunder, and the family ceased to reign. At present the *Kichok* are a kind of gipsies, that are thinly scattered in the northern parts of India, and live by snaring game, telling fortunes, and it is usually supposed by stealing. It must, however, be observed, that this tribe, which in the Songskrito language is called *Kirat*, would at one time appear to have been really powerful in this vicinity; and according to the *Yogizi Tontro*, was not reduced to its present miserable state, until the time of *VISWO SINGHO*, who will be hereafter mentioned.

There is also a tradition in the country, that a much greater portion of *Kamrup* formerly belonged to the *Bhoteas* than does at present. I am inclined to think, that these *Bhoteas* were really the Chinese, whose histories, I believe, mention their conquests in this part of India, and might naturally be confounded with the *Bhoteas*, from their impure feeding and from having made their attack through the country of that people.

It would not appear, that during the dynasty of *ADISUR*, any part of this district was comprehended in the Hindu kingdom of Bengal. On

the contrary, about that time, or not long after, the western parts of this country, as far as the *Brohmoputro*, seem to have been subject to a family of princes, the first of whom, that has left any traces, was **DHORMO PAL**. Whether or not from his name we may suppose that he was one of the **PAL** family, which preceded the dynasty of **ADISUR**, who in the wreck of his family may have saved a portion, I shall not venture to determine. From the works that are attributed to **DHORMO PAL**, he would appear to have been a person of some power, and even the works attributed to relations and dependents of his family, possess some degree of magnitude. He is said to have had a brother named **MANIKCHONDRO**, who seems to have died early, and to have left the management of his son and estate to his wife **MOYNAWOTE**. This lady makes a conspicuous figure in the traditions of the natives, and is said to have killed **DHORMO PAL** in an engagement near the banks of the *Tista*; at least the rája disappeared during the battle between his troops, and those of his sister-in-law. **MOYNAWOTE**'S son **GOPICHONDRO** succeeded his uncle, and seems to have left the management of his affairs to his mother, and for some time to have indulged himself in the luxury of 100 wives, among whom the two most celebrated for beauty and rank were **HODNA** and **PODNA**, one of whom, if not both, was the daughter of a person of considerable rank named **HORISCHONDRO**. When **GOPICHONDRO** had grown up, and probably, when he had been satiated with the pleasure which women bestow, he wished to interfere in business. His mother had then the art to persuade him to dedicate his life to religion; and having placed him under the tuition of her spiritual guide (*guru*) **HARIPA** a religious mendicant, (*yogi*) of remarkable sanctity, this prince, changed from voluptuousness to superstition, adopted the same manner of life with his instructor, and is supposed to be now wandering in the forests. The people of *Kamrup* are still frequently entertained by the songs of itinerant bards of the low castes called *yogi*, who repeat the poem called *Sibergit*, which gives an account of **GOPICHONDRO**, of his pious resignation of power, and the lamentations of his hundred wives, who by no means approved of his change of life. This song is in the vulgar language, and its repetition occupies four or five Hindu hours for two days.

As the father is praised by the Hindus for his piety, his son **HORICHONDRO**, or **BHOVOCHONDRO** as his name is here more usually pronounced, is given as an example of stupidity, who with his minister **GOVOCHONDRO** did nothing like other people, and turned night into day, and day into night. Many examples of their stupidity are related to serve as amusement to the youth of Bengal; but the rája seems to have lived

in considerable splendour, and without fear, while the works of his relation SORA and of his tributary BENNA show, that his dependents had considerable power, and did not require fortresses to enable them to live in security. After the death of BHVOCHONDRO there came a *Pala* rája of the same family who is said to have been destroyed by a dynasty that I shall have next occasion to mention, although it is more probable that a period of anarchy intervened.

The princes of the dynasty of DHORMO PAL are supposed to have been *Khyotriyos*; yet this seems doubtful. The lady MOYNAWOTE had not a brahman for a spiritual guide, but this important office was held by a *yogi*, that is a *Sudra* dedicated to a religious life; and there is great reason to believe that the *yogis* who repeat the songs, are descendants of this kind of priesthood, who were degraded by SONGKOR ACHARYO, and who reject the brahmans as spiritual guides, although in order to procure a miserable existence they have now betaken themselves to weaving, burning lime, and other low employments. In the south of India they collect and vend drugs, and pretend to practise physic, but are equally obstinate in rejecting the instruction of the sacred orders.

With regard to the next dynasty there is greater certainty, although as usual the chronology is attended with many difficulties. According to tradition there was a brahman whose name is unknown, but who had a servant that tended his cattle, no one knows where. According to some this servant was an infidel (*osur*) most probably from the mountains of *Tripura*; but concerning this different persons are not exactly agreed, and some allege that it was his mother who was of the impure race, and that she bore her son while in the service of the brahman. Many complaints were lodged against this fellow, and his master one day was desired to view him asleep while his cattle were permitted to destroy the crops of the neighbours. The brahman was advancing with a determination to bestow the merited punishment, when he observed the lines on the naked feet of his servant, and immediately by his profound skill in the most noble science of *Samudrik Jyotishi*, knew that the sleeper would become a prince. On this discovery the brahman paid him all due respect, rendered it unnecessary for him to perform any low office, and shewed him still more kindness by disclosing the certainty of his future greatness; the servant in return promised that when he became a prince, the brahman should be his chief minister, (*Patro*). Accordingly some time afterwards, it is not known how, he became king, and is said to have destroyed PALA, the successor of HOROCHONDRO. This, however, as I have before observed, is rather doubtful; and *Kamrup* in the interval had probably fallen into a state of anarchy favorable

for an upstart, and was overrun by various rude tribes, *Koch, Mech, Garo, Kachhari, Rabha, Hajong, Tripura, Bhot, and Nepcha*, who neither spoke the language of Bengal, nor had adopted the religion of the brahmans, although numerous fugitives had taken refuge from the violence of Sultan JALALUDDIN, as mentioned in my account of *Dinajpur*, and had diffused some degree of instruction, or at least had preserved the little improvement that had been made in former dynasties.

The new rája seems to have been much guided by his minister the brahman, assumed a Hindu title *Nilodhwoj*, and placed himself under the tuition of the sacred order. For this purpose a colony of brahmans were introduced from *Maithilo*, and from thence we may perhaps infer the country of the minister. There is no trace of any earlier colony of brahmans in *Kamrup* than this from *Maithilo*, and the great merits of the prince were rewarded by elevating his tribe called *Khyen* to the dignity of the pure Hindu. It is, indeed, contended by RAJBONGSIS, that NILODHWOJ was of their caste, and that the *Khyen* were only his servants, begotten by RAJBONGSIS on prostitutes of the *Khyotriyo* tribe, but it seems highly improbable that the rája would procure the dignity of pure birth for the illegitimate offspring of his servants, while his own family remained in the impure tribe of RAJBONGSI, the origin of which seems to me of a later date.

The rája having settled his government built a city called *Komotapur*, and his successors took the title of *Komoteswor* or lords of *Komota*, while the title of *Komoteswari*, or lady of *Komota*, was bestowed on the family deity, a female spirit, as usual, delighting in blood.

As each rája of this family claimed his right to govern on the authority of some miracle, it was discovered by CHOKRODHWOJ, the second prince, that BHOGODATTO had received from SIB an amulet (*koboj*) which rendered him invulnerable, and which he usually wore on his arm. In the hurry of preparation for battle, this amulet had been left behind, on the day when BHOGODATTO was killed, and lay concealed near *Hastinapur* until the time of CHOKRODHWOJ, when this prince was informed in a dream how the amulet might be found, and that it was to be worshipped as representing *Komoteswori*, as it is to this day.

During this dynasty the office of chief minister (*Patro*) seems to have been hereditary as well as the regal dignity, and the brahman and his descendants occupied a fortress contiguous to the walls of the city; but the government does not seem to have been very secure, as not only the royal palace and the residence of the minister, but several houses of inferior personages seem to have been fortified, although situated within the immense works by which the city was surrounded.



CHOKRODHWOJ was succeeded by NILAMBOR, the third and last prince of the family. His dominions are said to have extended over the greater part of *Kamrup* and included part of *Motsyo*; for the fort at *Ghoraghat* is said to have been one of his erecting. Numerous public works, especially magnificent roads, are attributed to this prince, who from thence seems to have governed his country with attention, but the circumstances related concerning his overthrow are accompanied with traits of the most savage barbarity.

Whether from a natural suspiciousness of temper or from an uncommon accuracy of observing such circumstances, the rája on entering his women's apartments one day observed traces, which convinced him, that a man had been there. He was immediately inflamed with jealousy, and having sent people to watch, a young brahman, son of SOCHI POTRO the prime minister, was soon caught attempting to enter the royal apartments and to dishonor his master. He was taken before the king, put privately to death, and part of his body was prepared for food. His father, having been invited to a grand entertainment given by the king eat of his son's body; for in *Kamrup* the brahmans are allowed great liberties in their diet. After he had satiated himself with this monstrous food, the king showed him his son's head, and informed him of the crime and of what he had been eating. The minister is said to have acted with a presence of mind well suited for such an occasion. He said, that his son had no doubt deserved any punishment; but as the king had made him eat such a horrid repast, that he could no longer continue in his service, but would retire from the world, and dedicate himself to the duties of a religious mendicant. By this stratagem he was allowed to retire, and having assumed the habit of a *sonnyashi*, immediately left *Kamrup*. His first object now was to procure revenge, and he proceeded without delay to *Gaur*, when he laid before the Moslem king information, that was followed by an attack on NILAMBOR. For some time however the invasion did not seem likely to terminate in success; for after a siege of 12 years the Moslem had made no impression on the works of *Komotapur*. Although the length of the siege is probably exceedingly exaggerated by tradition, its issue probably continued long doubtful; for the invading army had evidently fortified its camp with much care. The place is said to have been taken at length by stratagem, or rather by the most abominable treachery. The Muhammadan commander informed the king by message, that having lost all hopes of taking the place, he was desirous of making peace, and leaving the country on the most friendly terms. This having been accepted, it was proposed that the ladies of the Moslem chiefs should pay their respects to the queen. This

also was received as a mark of polite attention, and a number of covered litters were admitted into the women's apartments within the citadel. In place of Moslem ladies these litters contained arms, and the bearers were soldiers, who immediately on gaining admission seized their weapons, and secured the person of the rája, who was put into an iron cage in order to afford amusement for the sultan and populace of *Gaur*; on the way he contrived to escape, and has ever since remained concealed.

The Muhammadans of *Ghoraghat* attribute the destruction of *NILAMBOR* to their favorable saint *ISMAEL G'AZI* of whom I have given an account in the report concerning *Dinajpur*. By the Moslems of this district he is considered as a chief of saints, and several places of worship are erected to his memory, or over precious relics that belonged to his person. But this reverence has probably induced them to magnify the conquests of *ISMAEL* who governed *Ghoraghat* in the reign of *NASRAT SHÁH*; a prince whose reign commenced about the year of our era 1523, which seems to be somewhat too late for the destruction of *Komotapur*.

In the manuscript account of *Bengal*, which I procured at *Maldeh*, it is said, that the sultan *HOSEYN*, immediate predecessor of *NASRAT*, conquered *Kamrup*, and killed its king *KARUP NARAIN*, son of *MAL-KONGYAR*, son of *SADA LUKHYMON*, and I have no doubt, that these are the same persons with the three princes of *Komotapur*; for the Hindu rájas have so many titles, that one person may choose to call them by a name totally different from that which another person may choose to employ; and the time of the events will not admit of our supposing that a dynasty intervened between that destroyed by *HOSEYN*, and the one which now governs the small portion of *Kamrup* that retains some degree of independence.

In the short account of *Assam* published in the 2nd volume of the Asiatic Researches, which seems to me more accurate than the commentator is willing to admit, it is stated, that *HUSEYN SHAH*, a king of Bengal, undertook an expedition against *Assam*, in which he had at first considerable success. The rája retired to the mountains, and the son of the king was left with a large army to keep possession of the country. In the rainy season the rája descended into the plains, and destroyed the whole invading army, who were all either killed or made prisoners (*A. R. II. p. 180*). It was probably this rash expedition, which frustrated the conquest of *Komotapur*, and rendered it necessary for the Moslems to retire, after a possession of one or two years. Indeed the traditions of the Hindus state, that they made no stay at *Komotapur*, but retreated

immediately with what booty they could procure. This, however, seems improbable, and I shall have occasion to show, that within the walls of *Komota* there are probable traces of the Moslems having begun very considerable works, which have been broken off unfinished; it is therefore probable that *NILAMBOR* was destroyed by *HOSEYN SHAH* in person, and he begun to reign about forty years before the usurpation of *SHER SHAH*, or about the year 1496 of our era. The conquests therefore of *ISMAEL G'AZI* must be confined to the vicinity of *Ghoraghat*, and perhaps he did no more than retain these small portions of the conquests made by the sultan *HOSEYN*, where he founded the city named after *NASRAT*, the successor of that prince.

The overthrow of *NILAMBOR* is looked upon by the natives as a most unfortunate event. In the *Yogini Tontro*, it is told, that in the time of *NOROK*, a most holy person, *VOSISHTHO MONI* went to the temple of *Kamakhya* and was refused admittance by the infidel guardian. As such persons conscious of their worth are sometimes apt to be a great deal too irascible, *VOSISHTHO* prayed that the temple might be deprived of all dignity, which accordingly would have immediately happened, had not the goddess of love (*KAMAKHYA*) made a complaint to *SIVA*, who although he could not entirely prevent the effects of the holy man's imprecation (*sang pon*); yet postponed the completion until the destruction of *Komotapur*, and he ordered, that this degradation should continue only until the restoration of the *Komoteswar*, who, as I have said, is supposed to be still alive, and his return is anxiously and eagerly expected by the people of *Kamrup*, as some of the events which are prophesied to precede the restoration, have already come to pass. On that happy occasion the goddess of delight will be restored to full glory, and the four nations of usurpers who now share *Kamrup*, will be extirpated by mutual slaughter. These nations are the *Ploo!* or *Bhoteas*; the *Saumar* or *Assamese*; the *Kuvach* or *Koch*, who govern *Vihar*; and the *Yovew* or barbarians of the west, who, according to the authority of the *Yogini Tontro*, are descendants of *HAIHOYO* and *TALONGGHO*, two *Khoyotriyos*, who on account of cowardice were degraded and prohibited from eating pure food, and from following the doctrine of the *Vedas*.

Two brothers named *CHONDON* and *MODON*, after the overthrow of *NILAMBOR*, established a short government of eight years at a place called *Norolovas*, which now is under the government of the *DEB rāja*, and is about thirty miles north from *Komotapur*. This power was not only transient, but seems to have extended to no great distance, and the parts of *Kamrup* that were not retained by the Moslems, seem to have fallen again into anarchy under the chiefs of the rude tribes, which I



formerly mentioned. Among these by far the most powerful were the *Koch*, who had a number of chiefs, at first independent, but who gradually united under the authority of one of themselves named HAJO. He seems to have been a person of great vigour, and reduced under his government the whole of this district except *Ghoraghat*, together with most of that portion of *Assam* which is included in the government of *Gohati* or *Kamrup*. He had no children, except two daughters HIRA and JIRA.

HIRA, before the rise of her family, had been married to a certain HERYA, who is said to have been of the impure tribe called *Mech*. Whether JIRA was married or not is not known, but she had a son named SISU, while her sister bore a son named VISU. The former is said to be ancestor of several branches of the family that are now subject to the company; but VISU succeeded to the whole power of his grandfather. As he was not contented with the instruction of the *Kolitas*, who seem to have been the original priesthood of his tribe, nor with the learning of the brahmans of *Maithilo*, who had been formerly introduced, he procured some men of piety (*Baidiks*) from *Sri-hotto*, and gave them the title of *Kamrupi* brahmans, and these form the second colony of the sacred order that has settled in this country.

To this era may probably be referred the composition, or as the Hindus would say the publication of many, or most of the books called *Tontros* which are supposed to have been communicated by the god SIVA to his wife PARBOTI about 5000 years ago. One of the most celebrated of these compositions the *Yogini Tontro* I am indeed informed, mentions the amours of HIRA and the government of her son; nor is there any doubt that *Kamrup* is usually considered as the grand source of this system of magic, and the period between the time of VISU and of his great-grandson PORIKHYIT seems to have been the only period, when the learning of the brahmans flourished in that country. The doctrines contained in these works admit of many indulgences necessary for new converts, and to enable the brahmans to share in the pleasures of a most sensual people; and they inculcate chiefly the worship of the female spirits that are appeased with blood, which was the original worship of the country, and which has now become very generally diffused among the brahmans of Bengal, with whom these *Tontros* are in the highest request.

It was now discovered that the rája was not a son of the poor barbarian HERYA; but that his mother although born a *Koch*, was not only of a celestial origin, but had been the peculiar favorite of the god SIVA; who had passed much time in amorous dalliance with the damsel, and was the actual father of the prince, who took the name of VISWO SINGHO,

and bestowed on the son of his aunt JIRA that of SIVA SINGHO; and this prince also claimed for his mother, the honor of the most intimate favor of the god, whose name he bore.

Although the *Yogini Tontro* calls the father of HIRA a barbarian (*Mlechchho*); yet it has been discovered, that the *Koch* were not in fact an impure tribe, as had been in general supposed; but were descended from some *Khyotriyos*, who had fled into *Kamrup*, and the adjacent country of *Chin*, in order to escape from the violence of POROSURAM, when that deity pursued the kings of the earth, and gave their territories to the brahmans. In the exile the descendants of the *Khyotriyos* had departed from many parts of the Hindu law; and on this account were considered impure. This seems to be exactly the same story, which Sir WILLIAM JONES quotes (A. R. II. page 368), from the Institutes of MENU, and on the authority of which he deduced the origin of the Chinese from the Hindus. The features both of Chinese and *Koch* seem to me insuperable objections against that theory; and I have no doubt, that both the passage of Menu and the fable of the *Koch* are equally founded on national vanity, which, however unbecoming in a lawyer or philosopher like MENU, is excusable enough in the *Koch*, who among the people with whom it is their fortune to live, are naturally desirous of procuring some means of being raised from the dregs of impurity. On this pretended descent the *Koch*, or at least all of them that have adopted the Hindu religion and have relinquished their impure practices, assume the title of *Rajbongsis*, or descendants of princes; and the other rude tribes of *Kamrup* and *Chin*, such as *Mech* and *Hajong*, who have followed their example in religion, have assumed the same title. All the descendants of HIRA, still farther elated by their supposed divine origin, assume the title of *Deb* or Lord, and all the reigning princes of the family claim the title of *Narayan*; which among the Hindus is one of the names of the supreme deity.

VISWO SINGHO was so weak as to divide his dominions between two sons NARO NARAYON and SUKLADHWOY. The former obtained the country west from the *Chhannokosh*, the latter obtained the country east from that river, together with both sides of the *Brohmoputro*. I shall now proceed to give an account of this branch of the family which was the most considerable.

SUKLODHWOY seems to have governed without any remarkable event, and left his dominions to his son ROGHU DEV NARAYON. He had two sons PORIKHYIT N. and another*, who as an appanage obtained *Dorong* which his descendants still retain under the kings of *Assam*. PORIKHYIT

* BOLLIT NARAYON.

however, prudently retained the sovereignty of the whole, and lived at *Gilajhar* on the west side of the *Godadhor* where the only remains to be seen, although the place is also called *Atharo Kotha*, or eighteen castles, clearly evince the small improvement which his people had made in the arts; but his court seems to have flourished in learning, and 700 brahmans are said to have resided at his capital.

When ABUL FAZIL composed the *Ayín Akbery*, the sub-division of the kingdom of VISWO SINGHO was not known at *Delhi*; although in all probability it had recently taken place. From prudential motives it had perhaps been carefully concealed, and the two branches of the family lived in an amity that was absolutely necessary for their safety. ABUL FAZIL says that "north from Bengal is the province of *Cooch (Koch)* the chief of which commands 1000 horse and 100,000 foot (the usual oriental exaggeration). *Kamrup*, which is also called *Kamtah (Komota)* the old capital) makes a part of his dominion." Soon after this, however it is said, that the Muhammadan governor of *Dhaka* discovered the real state of affairs, and became very urgent with PORIKHYIT for tribute. The rája being afraid did not absolutely refuse to comply, but in order to procure favorable terms was advised to undertake a journey to *Agra*, where he was kindly received, and procured an order from the king, directing the governor to take whatever tribute the rája chose to offer. On returning to *Dacca*, the rája who was totally ignorant of human affairs, and of the immensity of the sum offered 20,000,000 of rupees and returned to his capital highly satisfied with his conduct. When his minister (*Patro*) explained to him the nature of the promise which he had made, the poor rája was thrown into consternation, and again set out for *Agra*, taking his minister with him, in order to avoid such mistakes. Unfortunately he died by the way and the Moslems, in the mean time, took possession of the country, in order to recover the money that had been promised*. The minister proceeded to court, where after some trouble he was appointed kanungoe or register of the country, which was divided into four sirkars. *Uttro Kul* or *Dhengkiri* north of the *Brohmoputro*, *Dokhin Kul* south of the same, *Benggalbhumi* west of the *Brohmoputro*, and *Kamrup proper* called so as containing *Gohati*, the most ancient capital of the country. The brother of PORIKHYIT was confirmed in his government of *Dorong*, and CHONDRO NARAYON, the son of the unfortunate rája, received very large estates which his descendants still retain as subjects. These I shall afterwards have occasion to mention. Large estates were also given to the new kanungoe from whose family papers these accounts are taken.

* PORIKHYIT'S descendants are the rájas of *Bijnes* according to the records of the Durrang family.

The Moslem army took possession of the country about the year 1009 of the Bengal era, that is A. D. 1603 or two years before the death of AKBER. A Mogul general (Fouzdar) resided at *Ranggamati*, and the country is said for many years to have undergone considerable improvements, especially under the government of a certain noble Hindu named MANOSINGHO.

The usual desire of encroachment, however, induced the Moslems in the reign of AURUNGZEBE, to invade *Assam*, the limits of which were then very narrow, but the people were fierce of their independence, were invigorated by a nourishing diet and strong drink, and their princes still retained their energy of mind and had not sunk under the enervating and unceasing ceremonies of the Hindu doctrine. The Mogul army under MEER JUMLA was completely destroyed, and they were compelled to cede to the Assamēse the whole of Sirkar *Kamrup*, and a portion of *Uttorkul* and *Dokhyin Kul*, which have ever since been placed under the management of a great Assamese officer, and form the government of *Kamrup*, which is about a third part of the whole kingdom. After a residence of 73 years, the Muhammadans withdrew the (*Foujdari*) government of *Ranggamati*, and placed the station of the governor of the frontier at *Ghoraghat*, as I have mentioned in my account of *Dinajepur*. Still, however, an officer dignified with the title of Nawab resided at *Ranggamati* with some troops; but it seemed to have been the wish of the Mogul government to encourage the growth of forests and reeds, which might serve as a check to the incursions of the Assamese; and nothing was required of the chiefs descended from PORIKHYIT, nor from the zemindars of the hilly countries, but a tribute in a great measure nominal.

The conversion of the kings of *Assam* to the doctrines of the brahmins of Bengal, which happened soon after the overthrow of MEER JUMLA seems to have put a total stop to their enterprise, and the petty chiefs, who remained nominally under the authority of the nawab of *Ranggamati*, would have been entirely uninterrupted in cutting each other's throats, and in reducing the country to a desert, had not they been assisted by the *Bhoteas*, who brought several of them under their authority and continued advancing, when the Company's gigantic power put a stop to all petty attacks of that nature. A tolerably settled frontier has been obtained; there are some appearances of a regular government, and cultivation is beginning to revive, although it is still much retarded by the constant squabbles of the chiefs, and the liberty which they take of dictating to all who reside on their property.

I shall now finish this historical view with an account of the western division of VISWO SINGHO's dominions, which fell to the share of his son

NORO NARAIN. This division comprehended the whole northern parts from the *Chhonnokosh* to the *Mohananda*, and from *Sirkar Ghoraghat* to the mountains of *Bhotan*, being a very fertile tract of country about 90 miles from N. W. to S. E. and 60 miles from N. E. to S. W. The north-west extremity of this territory was settled on the descendants of **SIVO SINGHO** the son of **JIRA**, the grand-aunt of **NARO N.** from among whom the rajas were bound to choose their chief ministers (*Raykot*). This portion, as producing an income of 32,000 rupees a year, was called *Bottrishazai* (*Batis hazari R.*) but the general name given to the principality was *Vihar*, as having been the scene of the voluptuous intercourse between **SIVA** and the daughters of **HAJO**. In order to distinguish this *Vihar* from the large territory of the same name near *Putna* it has been usual to call it *Koch Vihar* (*Coos Beyhar*, **RENN.**); but all remembrance of the *Koch* is disagreeable to its princes, and at their capital all additional appellations given to *Vihar* are considered as exceedingly uncourtly*.

The following is the succession of these princes; but among these after the fifth generation are some sons by adoption, and some co-lateral, and it is alleged illegitimate successors, of which I have been able to procure no satisfactory account: 1st **NORO N.**, 2nd **LOKHYMI N.**, 3rd **VER N.**, 4th **PRAN N.**, 5th **MOD N.**, 6th **VOSUDEV N.**, 7th **MOHINDRO N.**, 8th **DINO N.**, 9th **RUPO N.**†, 10th **UPENDRO N.**, 11th **DEVENDRO N.**, 12th **DHAIRJYENDRO N.**, 13th **RAJENDRO N.**, 14th **DHORENDRO N.**, 15th **VIJENDRO N.**‡, 16th **KHOGENDRO N.**§, 17th **HORENDRO N.**, the

* The name of *Kusha vihar* is doubtless derived, though the people now know nothing of it, from the Buddhist monastery or *vihara* which existed there in ancient times, as did the province of *Behár* from another monastery near *Gaya*, or at *Behár*.

We know from **M. CSOMA'S** *Life of SHA'KYA* (*As. Res.* XX. 310), that this **MUNI** died at *Kusha* the capital of *Kamrup*, (so called from the *Kusha* grass for which it was famous:) and that the *Chaitya* "of the head ornament" was distant about four miles from the pair of *sál* trees near this town, under which he expired (p. 311); for says **KUNGA VO**—"in all the space from the city of *Kusha* to the river *Yig-dan*, (*Torsha?*) from the grove of the *sál* trees to the *Chaitya*, 12 miles in circumference, there is not a single spot which is not occupied by wise gods of great power—some rolling on the ground, some wringing their hands, uttering ejaculations, some oppressed by great sorrow, sit still, and some depending on religion say, 'The lord who instructed us in many things that were pleasing, agreeable and delightful to the heart, has been delivered from pain!' It would be very desirable to examine the site and remains of the *Kusha-vihara* minutely, as it can hardly be doubted that the place whose champions contended for the possession of *Buddha's* relics with the eight chief powers of India, must have been at that time, and long after, a town of great importance. The rich valley of *Assam* was probably then what it seems again destined to become in a few years.—**ED.**

† An usurper, only reigned a few days or weeks. ‡ **DHAIRJYENDRO N.** restored?
§ **KHOGENDRO** was the *Nazir deo* who actually governed the country but never assumed the title of raja.

reigning prince. By the natives he is considered as a very pious person, for he pays no attention to business, but passes the whole of his time in retirement and as is supposed, much of it in prayers ; and as he lays out much money in supporting men dedicated to a religious life, of course his temporal affairs are not flourishing, and his people would probably suffer less, were he more attentive to their government ; for he is said to be desirous of rendering justice. At present the whole management of the country is left to strangers, who are alleged to be mere sharks, but all the chiefs of the *Rajbongsis* are like their prince ; no one is said to be either able or willing to attend to business. It is supposed by the natives that the gods have bestowed an extraordinary reward on the virtue of the rája. He has 50 wives, and it is commonly reported, and gravely asserted to be believed, that all these ladies have often, in the course of one day, received the most intimate proof of the rája's affection and extraordinary vigour. The accounts which I have heard of this chief from Europeans, who were all acquainted with him, differ a good deal from the above, and represent him as a poor creature exhausted by drunkenness and debauchery.

The *Vihar* rájas reckon by the era of their ancestor *Viswo*, and suppose that he began in the Bengal year 916 or A. D. 1509. This is scarcely reconcilable with the supposition that *Hoseyn Shah* destroyed *Komotapur* after a long siege, as he began about 1496 ; especially if we suppose, that a long anarchy took place between the governments of *Nilambor* and *Viswo*. I can only suppose that *Hajo* immediately after the retreat of the Moslems began to acquire great power, and that the era begins with the independence of the country, in place of being reckoned from the reign of *Viswo*, the impure *Hajo* being considered by the descendants of the gods as an unworthy connection. It must farther be observed, that from an inscription on a temple erected by *Pran Narayan*, the great-grandson of *Viswo*, that prince was alive in the year of *Sakadityo* 1587 or A. D. 1665, so that five reigns according to the era of *Viswo*, occupied 156 years while the thirteen following reigns have only occupied 144 years. It must be also observed, that the era of *Viswo* does not appear to have been in use in the year 1665, and is a recent invention which can have no great authority ; yet I do not think it much antedated, as the government of *Porikhyit*, a great-grandson of *Viswo*, was destroyed in the year 1603.

After the division of their territory into two principalities, the *Koch*, sensible of their weakness, are said to have erected a line of fortifications along their southern frontier. This still remains, and is attributed to *Mod*, the 5th prince of *Vihar*, but it proved an effectual protection to



his part of the country for only a very short period. About the beginning of the 18th century the Muhammadans, under the command of a certain EBADUT KHAN, were able to wrest from his descendants the districts which in the Bengal atlas were called *Boodah* and *Rungpur*; and, as if they had conquered the whole, erected them into a new sirkar called *Koch Vihar* or *Kochar*. Indeed it comprehends at least a third of the whole principality, and that by far the most improved, although this is probably owing, in a great measure to its change of masters.

The confusion that ensued in the Mogul government secured the *Vi-har* family from farther encroachment on that side, but their reduced state now exposed them to the depredations of DEV rája who deprived them of one half of their remaining territories. The attack indeed was on the point of proving entirely ruinous, when DORPO DEV, the *Raykot*, or hereditary minister, having laid aside all regard to his duty, rebelled against his sovereign and kinsman. He entered into an alliance with the DEV rája, and ceded to him a considerable portion of the *Bottris-hazári*, on condition of being supported in overthrowing the rája, to whose title in fact there were some objections. Having procured troops from *Bhotan* he invaded *Vihar*. The rája in despair* applied for assistance to the Company, and to secure protection engaged to pay one half of his revenue. Accordingly in 1772 Captain JONES with a battalion of sepoy's routed DORPO DEV, who took refuge in *Bhotan*. Captain JONES followed and in 1773 took the fortress of *Dolim Koth*, on which the DEV rája and DORPO sued for peace. This was granted, and the parts of *Bottris-hazári* that had not been ceded to *Bhotan*, were restored to DORPO; but he was placed exactly on the same footing as an ordinary zemindar, and a revenue was fixed on his lands, while he lost all authority in the remnant of *Vihar* which does not now exceed one-third of its original dimensions, and pays as a tribute what is supposed to be one half of its net revenue. In settling the frontier great favor and lenity seem to have been shown to the Bhoteahs, probably with a view of gaining their friendship in an expectation of commercial advantages, that would appear to be chimerical; some favor, however, has also been shown to the rája. When the Moslems settled their new conquest of sirkar *Kooch Vihar*, they gave the zemindaries, or management of the soil, to various officers and servants of the rája, by whose treachery they probably had been assisted. Among these, three considerable estates were in the possession of a branch of the family, from among the members of which the *Nazir deo* or commander of the troops, was always ap-

* The rája was carried off by the *Bhoteas* and the *Nazir deo* applied to the English Government.

pointed ; and these estates had been granted as a part of the means by which the expense of the army was to be defrayed. The descendants of the *Nazir deo* had enjoyed these estates from the time of the Moslem conquest, but on the British army being bound by treaty to defend the country, the rája represented that he had no occasion to support a military establishment, and that therefore the general had no pretence for keeping lands to enable him to maintain soldiers. It has been thought just to allow the rája to enjoy these estates as a zemindar, and to receive whatever profits may be derived from their management. The possession which the *Nazir deo* had obtained from the Moslems seems to render the case doubtful ; but the claim of the rája is certainly possessed of great weight*.

* In 1788-89, Messrs. MERCER and CHANNET were appointed to investigate amongst other matters, the respective claims of the rája and *Nazir Deo*. From the documents presented to them there does not appear to be any grounds for supposing that the Moslems had any thing to do with the partition of the country into three estates between the Rája, the *Nazir Deo*, and *Dewan Deo*. For some generations the rájas had been appointed by the *Nazir Deo*, and it was acknowledged to the commissioners that the *Nazir Deo's* sanction was necessary to give validity to the enthronement of the rájas. The *Nazir Deo* claimed a 9 annas 10 cowry share in the ráj, and though this may seem exorbitant, yet considering the power of the *Nazir Deos* as commanders in chief, it may be believed that the rájas, who were entirely indebted to the *Nazir Deos* for their thrones, had voluntarily submitted to the considerations proposed by the *Nazir Deos*. The commissioners gave no opinion on the respective claims, but merely submitted the evidence collected by them to Government. Amongst the documents submitted, are the accounts of receipts and disbursements of the ráj from 1181 to 1189 B. E. or during the period of the reigns of the two preceding rájas and the two first years of the reign of the present rája. In these accounts the collections are entered in the names of the three sharers according to their respective shares, and the disbursements are made in the same manner. The Company's tribute, which is expressly for the maintenance of troops, and the pay of the retained Sebundies, are thus made general charges against the three sharers, not against the *Nazir Deo* alone ; and in the same manner are charged all the Durbar charges and charges of the courts, not against the rája's share only. This seems to disprove the rája's claim. For many years these claims were under discussion with our Government, and the *Nazir* was obliged to be satisfied, until they were settled, with a small estate and 500 rupees a month. At length the Government on a discovery of the rája's independence, and the *Nazir Deo's* subjection to him, declined to interfere and referred the claims to the justice, equity, and good conscience of the rája. It seems needless to add, that the *Nazir Deo's* claims are still in abeyance, but the rája has ever since been endeavouring to recover half the estate settled on the *Nazir Deo* through the intercession of the British Government—F. J.

*List of Rájas of Cooch Behár of the SEEBO BONGSO, or Siva Dynasty.*

1510. BISSEO SINGH—Founder of the dynasty, and said to be of divine origin; his brother SEESO SINGH ROYCOT, was the ancestor of the *Bykuntpur* rajas.
1553. NORNARAIN, son of BISSEO SINGH, whose younger brothers were SOOKLA-DUDGE, CHILLARAI and NORSINGH. The two first appear to have invaded *Assam*, and the present rajas of *Durrung Bijnee* and *Beltollah* trace their descent from SOOKLADUDGE; from the third brother are descended the rajas of *Pungah* in *Rungpur*.
1587. LOKHENARAIN, son of NORNARAIN.[†]
1621. BEERNARAIN, son of LOKHENARAIN.
1626. PRANNARAIN, son of BEERNARAIN.
1665. MOHUDNARAIN, son of PRANNARAIN, died without issue.
1680. BUSTODEBNARAIN, third brother of the preceding; he was put to death by JUGOONARAIN NAZIR DEO, son of GOSSINE MOHEENARAIN NAZIR DEO, on which BHOJE DEO and JUG DEO brought up a force from *Bykuntpur*, put to flight the *Nazir Deo*, and set up MOHINDERNARAIN as raja. He died without issue.
1682. MOHINDERNARAIN, son of MANNARAIN, the son of BISSNONARAIN, second brother of BUSTODEBNARAIN. He dying without issue, *Cooch Behár* was again invaded by BHOJE DEO and JUG DEO, rajas of *Bykuntpur*, but were defeated by SONTONARAIN, then the *Nazir Deo*, a grandson of GOSSINE MOHEENARAIN, brother of raja BEERNARAIN, who set up his first cousin on the throne.
1693. ROOPNARAIN, son of JOGGOTNARAIN, the eldest son of GOSSINE MOHEENARAIN. On his succession *Cooch Behár* appears to have been divided into three shares, between the Rája, the *Nazir Deo*, and the *Nazir Deo's* elder brother, SUTTNARAIN, who was created *Dewan Deo*.
1714. OOPENDERNARAIN, great-great-great grandson of ROOPNARAIN, was set up by KOGHINDERNARAIN, *Nazir Deo*, his great uncle; but DEENNARAIN the son of the *Dewan Deo*, SUTTNARAIN, attempted to seize the throne with the assistance of some Mogul troops; he was, however, defeated, and fled to *Rangpur*.
1763. DEBINDERNARAIN, succeeded his father OOPENDERNARAIN, and died without issue.
1765. DURGINDERNARAIN, son of KURNARAIN, *Dewan Deo*, brother of OOPENDERNARAIN, succeeded DURJINDERNARAIN, being carried off by the *Bhoteahs*, the *Nazir Deo*, KOGHINDERNARAIN, set up DURJINDERNARAIN's brother, RAJINDERNARAIN.
1769. RAJINDERNARAIN, was succeeded by DURJINDERNARAIN's son.
1771. HURRINDERNARAIN: the year after he ascended the throne, KOGHINDERNARAIN the *Nazir Deo* called in the assistance of the British, with whom he made a treaty in 1772, in consequence of the defeat of the *Bhoteahs* by the British troops under Captain JONES, DURJINDERNARAIN was released and again succeeded to the throne, on his son's death.
1774. DURGINDERNARAIN: he was succeeded by his second son.
1782. HURRINDERNARAIN, the present raja who had seven sons, viz. SEEBINDERNARAIN*, MEGINDERNARAIN†, MOHINDERNARAIN‡, BHOJINDERNARAIN§, POOLINDERNARAIN, JAOGINDERNARAIN, NEEROINDERNARAIN.

* Living.

† Dead. ?

‡ Dead. ?

§ The raja wishes this son to be considered his successor, but he has not been created Joub raja, (*Yuvardja*.)—F. J.

J. F.

II.—*Notice of the Himálayan Vulture Eagle. By Lieut. T. HUTTON.*

In a former notice of this bird, drawn up from the examination of an injured and decaying specimen, I pointed out characters which I thought would entitle it to be ranked as a new and distinct species from that known as the *Gypaëtos Barbatus*, or Bearded Vulture.

I have since that time had opportunities of examining many recently killed specimens in various stages of plumage, from the yearling to the adult bird, and the result of my observations during nearly two years, is to leave me still farther convinced of the correctness of my conjecture as to its distinctness from the Lammer Geyer of the Swiss, and the Bearded Vulture of authors.

Mr. HODGSON, in a paper subsequent to my former notice, describes a Himálayan *Gypaëtos*, and pronounces it to be the European Bird, but I think I shall be able to show that the subject of the present paper possesses two constant characters, which are wanting in the former bird, and which, being constant, I believe to be sufficient to entitle their possessor to rank as a species new to science.

The characters I allude to, are, the dark gorget at the bottom of the neck, across the orange of the under parts, which is *always wanting* in the *G. Barbatus*, or of which at least no mention is made by any author that I have been able to consult*;—and the relation which the first prime quill bears to the length of the third.

Mr. HODGSON's bird, though stated to the contrary by him, I should conjecture to have been *immature*, as well as under moult; for he describes it as possessing brown feathers about the neck, which in the adult bird is never the case; and moreover he gives the *fourth* quill longest, which character if correct and constant would at once distinguish it, not only from the present subject, but also from the known Bearded Vulture, in both of which the *third* quill is the longest.

Mr. HODGSON asks also, in his postscript, in reference to my description, "Is there not here some undue allowance for shrinking in his old and mutilated specimen?" My answer is, 'On the contrary, I supposed an unskilful hand to have stretched it in skinning, and consequently erring on the safe side, gave $9\frac{1}{2}$ feet of expanse, or *less* than the actual measurement.'

The reason for asking this question, is not however quite apparent, since he has in the same paper allowed it to be probable that the bird may attain an expanse of *eleven* feet, or eighteen inches *more* than mine.

* Brisson: Cuvier: Gardens and Menagerie Zoological Society: Stark's Elements Nat. Hist. Encyclopædia Metropolitana, &c.



I have seen these birds from *Subathu* to the Snowy range; they are by no means of rare occurrence throughout the Hills, and at *Simla* are sometimes even numerous. They may be seen in all stages of plumage, from the dark-colored yearling, to the rich orange hue of the adult. During its flight the dark gorget on the breast of the mature bird is distinctly visible, and is darkest and most conspicuous in the female. Immature birds have the plumage of a dark brownish or blackish colour, varied according to age, with a few buff or dusky orange feathers intermixed; the under parts are also dark and the gorget consequently wanting. In those of the first year, the black bristles leading over the eyes to the hind part of the head are likewise wanting, but in the second and after years, as the plumage advances to maturity, these bristles also appear.

Their flight is strong and swift, and in the habit of sweeping through the air on extended wing, and in the occasional deep bending of the pinions as they renew the force of their advance, they are not unlike the Wandering Albatross (*Diomedea exulæus*), and this resemblance is often much heightened during the rainy season, when the white clouds rolling through the dark valleys of the Hills, give to the scene the appearance of a stormy sea. The *Himálayan Vulture Eagle*, though often seen by two and three at a time, is not gregarious; they feed on offal and carrion and the smaller animals, and like the kite (*Falco cheela*) will carry off portions of flesh in their talons and devour them on the wing. They are wary birds and will not descend to a bait as long as they perceive any person on the watch; they are difficult to bring within range of shot in consequence, and unless the fowler lies concealed he may often watch for days without succeeding in bringing down a specimen. When pressed by hunger, however, which in these regions must sometimes be the case, he becomes much bolder and is more regardless of danger, though still somewhat cautious in his approach to man. If flesh be left exposed unwatched, he does not scruple to take his share, using the utmost despatch and casting a keen glance around as if conscious of the theft and fearful of detection. On alighting, the attitude, and particularly the gait in walking, very strongly resemble those of the "*Neophron percnopterus*," the head and neck being held rather erect and the feet, in walking, lifted high off the ground.

The only sound I have heard them emit, is a hoarse croaking note uttered when angry.

They moult once in the year, during the months of May, June and part of July.

I have occasionally seen them soaring round in company with the

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kite and *Neophron percnopterus*, while the *Pondicherry* and Indian Vultures (*V. ponticerianus* and *V. Indicus*) were feasting on a carcass in the depth of the glen below.

They select some retired and nearly inaccessible cliff or ledge of rock whenever they seek to build their nests, which they commence in April, and the young are ready to take wing about the end of June.

On a comparison of Nos. 1 and 3, with the description of the mutilated bird formerly given by me it will be seen that the relative length of the primary quills is as near as possible the same in all, speaking not only to the accuracy of my measurements of the decaying specimen, but affording a strong additional reason for separating the *Himálayan* from the European *Gypaetos*, in which the first quill is represented as *nearly equal* to the *second* and *third*, while in the present species the third quill, in adult birds, uniformly exceeds the first, at the least, by three inches and a half.

Thus my own conviction is, that the relative length of the primary quills, together with the black gorget on the lower part of the neck, furnish *two constant* characters, uniformly foreign to the Bearded Vulture of authors, and I have therefore ventured to offer it as a species new to science, under the title of

GYPAETOS HEMACHALANUS.

G. supra fusco-niger, subtus ferrugineus; collo obscurior, infra pallidior; collo inferiore nigro circumcincto; primoribus, rectricibusque cinereis, marginibus nigrexentibus; remige tertio cæteris longiore, 3½ poll. primum excedente. In cæteris G. Barbato similis.

The following are correct measurements and descriptions of birds of various ages.

No. 1. Adult in full plumage.

	Ft.	in.
Length from tip of bill to end of tail,	...	4 0
Breadth of expanded wings,	...	8 6
Length of the bill from tip to gape,	...	0 4
Basal height,	...	0 1½
Basal breadth at the gape,	...	0 2½
Point of bill falling below the under mandible,	...	0 0½
Tail of 12 feathers, forming a wedge.		
The two central feathers of which are in length,	...	1 7
The first from the centre is 0½ in. less or	...	1 6½
The second " " 1 in. less or	...	1 5½
" third " " 1½ ins. less or	...	1 3½
" fourth " " 1½ ins. less or	...	1 2½
" fifth or outermost " 2½ ins. less or	...	1 0



The outer feather is therefore 7 inches shorter than the central one. The first quill of the wings is $3\frac{7}{8}$ inches less than the 2nd.

„ second „ „ $0\frac{1}{6}$ inch less than the 3rd.

„ third „ „ 1 inch longer than the 4th.

The third quill is therefore the longest, and exceeds the first by $3\frac{1}{2}$ inches.

Head clothed with short and somewhat down-like whitish feathers, with a black line of strong hairs arising from the base of the upper mandible running over each eye, and turning round to the back part of the head, but not joining. A short black stripe or moustache running backwards from the gape, covering the ears, which are on a line with the mouth. Nostrils and cere concealed beneath strong black bristles, directed forwards. Chin with a bunch of black bristles hanging down like a beard; from thence, the throat, neck, breast, belly, vent and thighs are ferruginous or pale orange, darkest on the chin and throat, palest on the vent and thighs; upper half of the back part of the neck, buff or very pale orange; lower half of the same, deep black, as also the back and rump, each feather with a narrow white shaft: upper smaller wing coverts black, with a buff or ferruginous stripe down the shaft, ending in a somewhat triangular spot of the same color; under wing coverts the same. From the black on the hind part of the neck, across the orange feathers of the breast, runs a band of deep brown or black, forming a well marked collar or gorget. Large wing coverts above, all the quills of the wings and tail, ashy black with darker edges, the shafts white. Tail of twelve feathers and wedged. Bill horn-colored; legs clothed to the toes with pale ferruginous feathers; toes bluish lead color; claws black, strong and curved. Under side of the wings pale cinereous, the ends of the quills blackish.

This bird was shot at *Tootoo* in September 1836, about 5 marches from *Simla*, and was in full plumage, the moult taking place in May and June.

This description will be found generally applicable to all adult birds, with the exception of the length and breadth, in which there is great variety.

No. 2. Adult and moulting; plumage in all respects agreeing with the last.

	Ft.	in.
Length from tip of bill to end of tail,	...	3 7
Expanse of wings,	...	8 6
Length of bill,	...	0 4
Basal height,	...	0 2
Basal breadth,	...	0 2 $\frac{3}{4}$
Point falling below the under mandible,	...	0 0 $\frac{1}{2}$
The third quill of the wings longest,		

Shot at *Simla*, 16th May 1837, while devouring some raw flesh laid out as a bait.

Had the plumage been perfect, it would have exceeded the last in size.

No. 3. Young of the first year, in moult.

Length, 3 ft. 9 in. Breadth, ft. 8 9 in.

The first quill $3\frac{1}{2}$ inches less than the second.

„ second „ $0\frac{1}{2}$ inch less than the third.

„ third „ $0\frac{1}{2}$ inch longer than the fourth.

The 3rd quill longest.

The relative length of the quills agrees closely with the foregoing birds, something being allowed for moulting. Plumage above dark brown, clouded with black, with a few buff or pale brown feathers on the upper part of the back. Head black, as also the upper part of the neck. Line of bristles over the eyes *wanting*. Strong over the cere and on the beard. Chin, throat and neck beneath, sooty black, from thence to the vent, dusky or pale brown. Under wing coverts dusky.

Shot at *Simla*, July 1837.

No. 4. Young of the 2nd or 3rd year, in moult.

Length, 8 ft. 9 in. Breadth, 8 ft. 4 in.

Length of bill, ... 0 3 $\frac{3}{4}$

Basal height, ... 0 2

Basal breadth, ... 0 2 $\frac{3}{4}$

Point falling, ... 0 0 $\frac{1}{2}$

The 3rd quill longest.

Beneath, from the beard to the breast, dark brown intermixed with tawny and orange-colored feathers; breast, belly, vent, thighs and under tail coverts, dirty orange clouded with a brownish tinge. Under wing coverts brown with clutches of black. Upper parts varied with a mixture of dark brown and tawny feathers, darkest on the rump. Upper wing coverts brown with dusky patches. Quills of the tail and wings dusky brown or ashy black, the shafts white. Feet leaden blue, claws blackish horn color. The line of bristles over the eyes is well marked in this specimen. The upper wing coverts, &c., want the buff-colored shaft and triangular spot at the tips, so conspicuous in the adult bird.

This specimen had no band or gorget on the lower part of the neck as in the mature bird, and is I believe in the second year's plumage, when the orange of the upper and under parts of the neck is beginning to usurp the place of the dark brown feathers of the first year.

Shot at *Simla*, 20th May 1837.

The measurements of three other adult Birds, shot at *Simla*, were as follows :

	ft.	in.		ft.	in.
Adult male, Length, ...	4	0	Breadth, ...	9	0
Adult female, ...	4	1½	... 9	0	
Adult female, ...	0	0	... 9	8½	

All had the gorget, and it was darkest in the females; in other respects all agreed with No. 1, above described.

The *Neemuch* specimen was in length 3 feet 11 inches, and in breadth 9 feet 6 inches.

The following table will serve to show how much they vary in dimensions.

	ft.	in.		ft.	in.
1. Adult male in full plumage, Length, ...	4	0	Breadth, ...	8	6
Adult male, „ ...	4	0	... 9	0	
Adult female, „ ...	4	1½	... 9	0	
Adult female, „ ...	0	0	... 9	8½	
5. <i>Neemuch</i> bird adult, „ ...	3	11	... 9	6	
Adult bird moulting, ..	3	7	... 8	6	
Young bird 1st year? moulting, ...	3	9	.. 8	9	
8. Young bird 2nd or 3rd year? moulting, ..	3	9	... 8	4	

Now allowing the two females to be of the same length, we shall have an average on the five adult birds in full plumage, of length rather less than four feet and half an inch, and breadth rather more than nine feet one and half inch.

POSTSCRIPT.—I formerly noticed the presence of a dark line along the head; this is erroneous, and was merely occasioned by the loss of the occipital feathers in the old specimen, leaving a few stumps and blackish hairs.

III.—Account of *Kálá Bágh* on the right bank of the Indus. By Munshí MOHAN LÁL.

During our voyage on the Indus we saw no place on its banks worthy of notice except *Rorí* and *Kálá Bágh*. The former presented nothing new which would enter my head in addition to the account read in the work of Captain BURNES, but the latter though in some respect already laid before the public by Mr. ELPHINSTONE, still enchanted me with its appearance.

The view of *Kálá Bágh* or *Bághin* from the valley which pours out the Indus is oval; and from the opposite bank it gives a most striking scenery which I cannot describe in any language. The houses of *Kálá Bágh* are built of stones and mud on the very bank of the river. The *Bázár* is so narrow, that two men can hardly pass abreast through it,

and the roofs of the houses are so low that a person cannot ride through it on horseback. There are about 140 shops which are all shut by the fall of the evening, and darkness covers the face of the streets.

MALAK ALÁYÁR is the ruler of *Bághán*; he is descended from the *Awán* family. He collects 32,000 Rs. per year, out of which he pays 10,000 Rs. to RANJIT SINGH. He has about 200 horsemen and the same number of foot soldiers.

There are 10 alum manufactories at *Bághán* and 200 at *Moch* on the other side of the river. Each of them consumes 4 Rs. fuel every day, which is cut and brought from *Kachhí*. A kind of earth which is greenish inside is dug from the neighbouring "*rah*" or hillocks: it is called "*rol*" and is put between layers of burning wood. Sprinkling of water produces an immediate fire, and then it becomes red. After this it is boiled in iron pans which are 52 spans in diameter, and passes into many successive focuses, (filters?) where it is well cleaned. *Jasáhu*, which is a kind of saltpetre, and produced in *Kachhí*, is mixed with it; and by means of large cups it is poured into the earthen jars. For some days it is left among them where it turns into the large loaves of alum. Each of the loaves is 2 mans in weight, and the price of each load, which is 8 mans, is 2 Rs.

The salt range stands close by the town, but the mines which were lately worked, and numbered 21, are on the other side of the mountain. It shines like crystal on the face of the hills. The appearance of the salt rock is very curious; in some places it is as a sheet of snow and in other lies in the manner of a line of shining marble running through and across the mountain. The grazing of the cattle has caused many holes in the base of the range. The caves from whence the salt is excavated are neither open nor deep. In the preceding times there was dug about 300,000 Rs. worth per year. The half of that quantity was the share of the diggers, the third of the *malak* or headman, and the fourth of the *Mahárája*. It was sold from 6 to 7 mans per Rupee and sent to *Derahjāt* by the Indus. Since the mines of *Pind Dáden Khán* have been monopolized by rája GOLA'B SINGH, all the salt ranges under the authority of RANJIT SINGH have fallen into his possession. He digs the mines and sells the salt according to his pleasure and on unjust plans. The salt of *Kohāt* is not so good as that of *Kálá Bágh*. *Sawád* and *Bhúner* formerly received it from this place.

The earth of *Bághán* produces alum as well as rock salt and sulphur. The *Sikh* authorities are not aware of the existence of the last mine, but the *malak* who descends from the ruling family of this place knows it, and digs it to manufacture gunpowder when he wants.

The heat in summer is excessive and the natives pass the hot noons in the cold caves of the salt. Their lodgings which are poor cottages run along the base or slope of the range. The complexion of the people is pale and fever generally attacks them. Nearly half of the population is subject to goitre.

The Hindu ladies who follow the doctrine of Bábá NA'NAK and GURU' GOVIND SINGH, tie their hair on the top of the head, in a manner hardly different from the fashion adopted by the European ladies, but that combs are not used by them.

IV.—*A brief account of the Origin of the Dáúd Putras, and of the power and birth of BAHÁWAL KHA'N their Chief, on the bank of the Ghírā and Indus. By the same.*

I had long since intended to lay before you the account of the birth and power of MUHAMMAD BAHÁ'WAL KHA'N, the present chief of the *Dáúd Putras*, but it struck me that the authorities who have frequently navigated the *Ghírā* might not have omitted to mention them. By the late arrival of the Asiatic Journal for the month of March, which contains the "Journal of Captain C. M. WADE's voyage from *Lodiana* to *Mithankot* by the river *Satlaj* on his mission to *Láhor* and *Baháwalpur* in 1832-33 by Lieutenant MACKESON, 14th Regiment, N. I." I find that the latter officer has only described the country, buildings, gardens and people, &c. of *Baháwalpur*, and has not favored us with any biographical accounts of the *Dáúd Putras*, which I have collected from authentic sources. I do not presume to say that it will meet your approbation, but trust that it will not fail to give you some amusement and information.

DA'U'D was a person of obscure origin and a weaver at *Shikárpur*; he was in the habit of shooting in the suburbs. One day finding no game he was returning home with great disappointment; perchance he happened to come on the brim of a ford or pond and listened to the sound as if some animal were passing through the water. It was night-time and he was sure that it could be no man, but some quadruped. As he had a loaded gun in his hands and could see the moving of the water he fired at it, which instantly created a cheerless shout saying, "You have killed an innocent being. I was a man and not an animal, take care of my wife and little children as they have now nobody to support them*."

* This story resembles that of the death of YAJNADATTA killed by king DASARATHA, the subject of a beautiful episode in the *Ramáyana*, translated by the late M. CHEZY; and perhaps the *poetry* of it may be partly borrowed thence:—

DA'U'D went near his head and while he was yet breathing learnt where his family was. On his death he cut off one of his fingers and took it to his house. He saw that a female with two young sons sat alone, and on his approach she began to frighten him. He said to her, do not make foolish attempts, I have just killed your husband, and threw the finger as a mark before her. She delivered herself to DA'U'D and implored his mercy not to kill her sons. He consoled them and asked what was the name of her late husband, and what names had her sons. She replied that the name of her husband was "KEHRU'," and those of his two sons "KAHÍR" (rope), and "KANDA" (thorn), and his forefathers were sweepers. As the lady was young and had an enchanting complexion, DA'U'D brought her along with her sons to his house. All the property which KEHRU' had hoarded by robbery fell into the hands of DA'U'D, who being a bachelor married her without delay. He changed the names of her sons from "KAHÍR" to "KEHUR" and from "KANDA" to "URB."

Sometime having elapsed she brought forth the third son by DA'U'D, who was named "BIRAJ." These three boys on reaching their manhood became fathers of a large family. The descendants of "BIRAJ" are called *Birjaní* to this day; and those from "KEHUR" *Kehraní*. The sons of "URB" are noted as *Irbaní*. As the *Birjanís* are descended from DA'U'D himself, they marry the daughters of the sons of the other two, but never give them their own, because they look upon *Kehraní* and *Irbaní* as the lowest of the tribe.

In a short time they grew much in power and number and built a separate fort to live in, in the suburbs of *Shikárpur*. Many of these

18. "Nipāne mahisham rátrao gojamvā tīram āgatam,
anyamvāpi mṛigam kanchij jighānsur ajitendriyas.
19. athāham pūryamānasya jalakumbhasya niscanam,
achakshurvishaye sraosham vāraṇasyeva vṛṇhitam.
20. Tatas supunkham nisitam saram sandhāya karmuke
asmin sabde saram kshipram asṛijam daivamohitas;
21. Sharechāsrīṇavam tasmin mukte nipātite tadā
Hā natosmiti karuṇām mānusheneritām giram†!"

which is thus literally rendered in Latin by the translator :

18. "Dum biberet, urum, noctu, elephantumve ad ripam advenientem
aliamve etiam feram quamlibet interficiendi cupidus, animi impotens.
19. Tum ego amphoræ quæ implebatur sonitum,
videndi sensu destitutus, audiivi elephanti velut fremitum.
20. Tum bene-pennatum, acutam, sagittam aptans in arcu,
ad hunc sonitum sagittam statim emisi, fato delusus;
21. Sagittaque, audiivi, hac emissâ, postquam cecidit,
'Ah! occisus sum' ecce miserabilem hominis tremulam vocem.

† The versification of this beautiful episode is the same as has been made familiar to us by copious Pāli extracts from the *Mahāvansa*. The English reader will best fall into it by repeating it to the vulgar tune of "A captain bold in Halifax."—ED.

people engaged themselves in cultivation, catching fishes, and many became plunderers, notwithstanding the rulers of the country threatened them for bad conduct; but they never lent them their ears.

The *Dáúd Putras* descended from the abovementioned three principal branches; and, as the number grew, were subdivided into the different clans under the name of some respectable person of the family. Such is the origin of the *Dáúd Putra* race.

On the death of AURANGZEB, A. H. 1118, BAHÁ'DUR SHA'H held the sceptre of the realm of Hindustán, and was every day informed that the *Afgháns* under JE'WAN KHA'N were destroying the country of *Sewí* and *Dhádar* near *Qandhár*. He was proud of the services which he had performed for AURANGZEB against DARA' SHIKOH. When the latter prince passed through *Sewí* on his way to *Qandhár*, he presented JEWAN KHA'N with riches, and trusting his confidence put up in his house. The KHA'N being treacherous and forgetful of the liberal obligations which he had received from the young prince, imprisoned and conducted him to the presence of the king at *Delhí*. His majesty honored him with the title of BAKHTYA'R KHA'N as well as with rich dresses*.

BAKHTYA'R KHA'N having obtained the leave of the king to return to his native land, considered himself independent of the rulers of *Qandhár* and *Shikárpur*. He after said publicly that he imprisoned DARA' SHIKOH and planted AURANGZEB on the throne; but while the king lived he was afraid to rebel or to espouse predatory habits.

When AURANGZEB expired, BAKHTYA'R KHA'N became mutinous and lengthened his hands to plunder the travellers. BAHÁ'DUR SHA'H was highly incensed at this, and appointed his son the prince MOIZZUDDÍN with an experienced army to chastise that banditti. The prince came to *Sewí* by the way of *Multán*, and after great opposition he killed BAKHTYA'R KHA'N and also the other *Afgháns* of his tribe.

In this battle the *Dáúd Putras* gave great assistance to the prince or the son of BAHÁ'DUR SHA'H, and showed wonderful actions of bravery. They obtained a good deal of booty from the camp of the *Bakhtyáris*, but were in want of a good leader, and the means to draw the favorable notice of the prince and his nobles. Being pressed, they commenced pillaging the rear of the troops, and by that plan were summoned to the prince.

MOIZZUDDÍN asked the *Dáúd Putras* the cause of their ill behaviour, to which their head men, as SA'DAQ KHA'N BIRJA'NÍ, MENDU' KHA'N, ISLA'M KHA'N and MUHAMMAD MARU'B KEHRA'NÍ, and QA'YAM KHA'N IRBANÍ unanimously replied, that they without salary sided with the

* This account is particularly mentioned in the *Shéh Jahán Námah* and *Aurangzebe Námah*.

prince and fought against the *Bakhtyáris*, but received no reward in return. They also complained against the injustice of the prince in rewarding those who performed no heroism in the engagement, and forgetting the men who put their lives in danger.

On hearing this the prince ordered them to occupy the country and desert lying on the eastern banks of the *Indus* and *Ghárá* opposite to *Shikárpur* and *Multan*, and to protect them from robbers.

According to the rules of the prince, the *Dáúd Putras* paid half of the produce of the land to government and kept half for themselves. This was the first time that the *Dáúd Putras* crossed the *Indus*. The town which they first peopled in *Kachhí* was *Khán Belá*, and the whole tribe distributed the land among themselves which to this day bears the name of the respective individuals. After this they became rich, and masters of the country between *Sabzalkot* and *Kot Quzan Rais*. They also erected the forts in the sandy desert and named them as *Islám Garh*, *Mauj Garh*, *Dín Garh* and *Khán Garh*, &c. &c. They are about 25 in number, situated at the distance of 15 or 16 kos from each other, and extend to *Valhor* and *Bhalan* the boundary of *Bikáner*.

On the bank of the *Ghárá* the *Dáúd Putras* built *Ahmedpur*, *Nanshaira*, *Sultánpur*, and *Khánpur*, and inhabited the country on the east and west of the same river from *Pák Pattan* down to *Uch*. They obtained the sanction of the *Multan* government, dug many wells, mahás (canals), and also got the possession of the country of *Kachhí* from *Sháh Garh* to *Mithankot*, which lie between the eastern bank of the *Indus* and the western of *Cheráh* and *Panjnád*. In the two latter countries they peopled many villages which bore their names. When they grew powerful they began to commit faults and oppression, for they had no ruler and never obeyed each other. Finally they became tyrants and universally took to pillaging the pilgrims and merchants.

In the beginning of A. H. 1153 or when NA'DIR SHA'H returned to *Kabul* from the victory of *Delhí*, he was obliged to come down to *Derahjat* and bend his course towards *Shikárpur* and *Larkána*, where he crossed the *Indus*, to reduce KHUDA'YA'R or MIA'N NUR MUHAMMAD KALOHNNÁ' of *Umankot* to subjection. When he settled the affairs of that quarter, he heard many complaints against the *Dáúd Putras*, on which he appointed Sardár TAIHMASP QULI' KHA'N to punish that nation. Before the *Tamách Quli*, as these people call him, reached their country, they assembled, put many of their wives to the sword, and taking their children went into the sandy desert where they made a wall round a small pond to defend themselves. The Sardár at the head of a considerable army besieged the *Dáúd Putras*. An engagement ensued and the



Persian commander was shot by the enemy: though some say by his own horsemen. On his death the army dispersed, lost the road and expired in want of the water, which the *Dáúd Putras* had in their charge. If the water had been in the hands of the Persians, they would have procured a decided victory.

The intelligence of the death of *TAIHMA'SP QULÍ KHA'N* and his unsuccessful expedition was conveyed to *NA'DIR SHA'H* at *Mathoud*, who resolved to revenge his losses, after pressing the disturbances of that quarter, which continued to the end of his life.

When the Prince *MOÍZZUDDÍN* had given the *Dáúd Putras* the country on the left bank of the *Ghárá*, the fort of *Diláwar* in the desert was under the government of the rája of *Bikáner*. *MÍR MOMIN KHA'N* and *DÍWA'N JASPAT RA'E* the agents of *NAWA'B KHA'N Bahádur*, son of *AB-BUL SAMÍ KHÁN TAÍMURÍ*, the governor of *Lañor* and *Multán*, drove out the garrison of the rája and made the *Dáúd Putras* masters of that stronghold. They said, by placing the *Dáúd Putras* in *Diláwar* they had fixed an iron pin on their boundary to check the progress of their antagonists.

Previous to the settling of the *Dáúd Putras* in *Diláwar*, the *Rájpúts* from the *Bikáner* and *Jaisalmer* countries harassed all the towns of *Multán* on the *Ghárá*, and since that time, none of the *Rájpúts* dared to cross the sandy desert.

The country of *Lakhí** lies 25 kos S. W. of the eastern bank of the *Panjnád* and the *Indus*. From thence passing through *Diláwar* the distance from *Mauj Garh* and *Dínpur* to *Valhar* and *Bhalar* is estimated at about 100 kos. Each of the abovementioned forts are situated 25 kos from the eastern bank of the *Ghárá*.

The first individual of the *Dáúd Putras* tribe of the *Birjání* family who came into this country was *SADAQ KHÁN*. He had a son named *BAHA'WAL KHA'N* who built the city of *Bahawalpur*. The latter again had two sons namely *MUBA'RAK KHA'N* and *FATAH KHA'N*. The former was generous, popular, and added some structures to make the city large. He gained the title of *Ali Muhammad Khán Khúgwári* the ruler of *Multán*; he also dug a canal, which is since called *Sardár whár*, from the *Ghárá*, and peopled the ruinous districts of *Jalálpur*, *Kattá*, *Ghalwhár* and *Adamwhár*. He paid the share of the *Multán* government without fail, and improved the country of *Kachhí* greatly—in fact peopled it newly. The latter was pious and never took notice of the affairs of the world.

* *Lakhí* means a tableland having on both sides small cliffs of sand.

MUBÁRAK KHÁN died without issue; and was succeeded by JA'FAR KHÁN the son of his brother FATAH KHA'N. The successor was called by the name of BAHÁWAL KHÁN. On the third day of his death all the respectable *Dáúd Putras* and the *Sayads* of *Uch* assembled to console JA'FAR KHÁN for the loss of his uncle, and to pray for the salvation of the deceased. Among them were the Makhdúm NÁSIRUDDI'N, SAYAD BOKHÁRÍ and Makhdúm GANJ GÍLARÍ, who stood and turning to JÁN MUHAMMAD and NUR MUHAMMAD KHA'N of the *Kehráni* family, and KA'RA'M and JAWÁL KHÁN of the *Irbáni* house, said in the following manner: "MUBA'RAK KHA'N gave a good name to the *Dáúd Putras* and treated every person kindly; you have no ruler among yourselves while every nation in the world has. If you take our sincere advice, look unanimously upon JA'FAR KHA'N as your leader and name him BAHÁWAL KHA'N." At length after a long discussion all the *Dáúd Putras* gave a full consent to the proposal of the Makhdúms; called JA'FAR by the name of BAHÁWAL KHA'N, and paid him homage. IKHT-YA'R KHA'N *Kehraní* boldly said to the Makhdúms that the "influence and power which they are placing in the person of BAHÁWAL KHA'N first will destroy their own houses and then those of the whole *Dáúd Putras*." The word of this man proved afterwards exactly true.

When the above mentioned Makhdúms died, BAHÁWAL KHA'N planted the seeds of quarrel amongst their sons, finally levelled their castles to the ground, and confiscated all their property. He made such schemes as created many disorders between the *Dáúd Putras*. This presented a favorable opportunity to BAHÁWAL KHA'N to reduce every one of them to poverty, and deprive them of the power and privileges which they enjoyed.

BAHÁWAL KHA'N on killing KHUDA' BAKHSH KHA'N *Kerahní*, who was in possession of great authority in the nation, said before he expired, that he put all the rebellious *Dáúd Putras* to death and established such peace in the country that a female could govern it without thinking of any insurrection on the part of the population.

The *Dáúd Putras* had recourse to the late TAIMUR SHA'H, the king of *Kábul*, and told his majesty that his coming to their country and assisting them against BAHÁWAL KHA'N would enrich him abundantly. In 1203 A. H. TAIMUR SHA'H came to *Baháwalpur* with 70,000 horsemen, and the KHA'N was pressed to have shelter into the sandy desert. The king driving the KHA'N's garrison out of the fort of *Diláwar*, and keeping all the *Dáúd Putras* under SHÁH MUHAMMAD KHA'N BADOZÁI, appointed him the governor of that place.

When TAIMUR SHA'H returned, BAHÁWAL KHÁN by his deep policy got



friends again with the *Dáúd Putras*, and by their aid expelled the king's governor out of the country, and made himself master as before. *BAHA'WAL KHA'N* died a natural death in 1224 A. H. after having governed for 36 years. His son *SA'DAQ KHA'N* succeeded him and ruled the *Dáúd Putras* for 16 years. This personage received the Honorable M. *ELPHINSTONE'S* Mission in its way to *Kábul* with great consideration, and showed him every hospitality and favor, as asserted in that gentleman's work.

It is nearly 13 years since *SA'DAQ KHA'N* died and his son, the present chief *MUHAMMAD BAHA'WAL KHÁN*, killed and imprisoned all his uncles and brothers and made himself the owner of the country. In the beginning he was smitten with pleasures and took very little notice of public affairs. The lion of the *Panjáb* embraced a favorable opportunity and deprived the weak *KHÁN* of his hereditary rights, which his enterprising ancestors had in the countries of *Multán* and *Kachhi*. The land which he holds now yields him six lacs of rupees per year, and all his treasures, which amount to five millions, are deposited in the fort of *Diláwar*. He has a despotic character and is addicted to every kind of luxury. He does not neglect all sorts of assistance to the British authorities for the navigation of the *Indus*, and is the first and best of our allies on that river. He is very fond of hunting, the accounts of which he keeps and compares with those of his father, to know whether he or his ancestors killed most game.

While I was acting in the place of Lieut. F. *MACKESON* the British Agent on the *Indus*, *BAHA'WAL KHÁN* treated me very kindly and showed me every consideration and respect. He deserves both my public and private thanks for the favors he has done me during my sojourn in his country.

IV.—Facsimiles of Ancient Inscriptions, Continued.

Notice of antiquities discovered in the eastern division of Gorakhpur; with a copy of an inscription on a stone pillar, &c. By D. LISTON, Esq.

I have the pleasure of sending you a copy of an inscription on a pillar which stands close by the village of *Kuhaon* in tuppah *Myle*, pergunnah *Selampoor Mujomlee*, zillah *Gorakhpur*. The copy I believe to be tolerably correct; it was first transcribed by a friend and myself on the spot; a clean copy of it was then made at leisure, taken back and compared letter by letter with the original.

The people of the village had no tradition to offer regarding the erection of the column, but it was generally agreed by them and others that no one who had made the attempt had been able to decipher the character, though it had occasionally been visited by natives of learning who had essayed the task.

The pillar is of a very compact sandstone and the letters deeply and clearly carved. Should it be my lot to return to the purgunnah, I shall be most happy, if you intimate that the inscription contains matter of importance, to endeavour to take an accurate impression of it, so that it may be submitted to the examination of those who have studied the characters of such inscriptions, exactly as it appears on the column.

The base of the pillar to the height of four and a half feet is a square of one foot ten inches. At 4-6 it is wrought into an octagonal form, and it is on the three northern faces of this portion of the column that the inscription is found. The accompanying sketch which I have attempted will serve to give an idea of the appearance of the column. The base portion on the western side has a naked male figure in relief carved on it, two females kneel at his feet and behind him is a snake coiled, gifted with seven heads which form a sort of canopy over the hero or god. On each aspect of the square portion of the column at the upper end is also a figure in relief, and the whole is topped by a metal spike, on which most probably was fixed a lion or *Singh*, but that has disappeared; not a fragment even remaining as evidence of its former existence.

II. At *Bhāgalpur* in tuppah *Bulleah*, the next to that of *Myle* to the east, and five miles S. E. of *Kuhaon*, is another pillar with traces of an inscription consisting of twenty-one lines; some pains, however, have been taken to destroy the engraving, and I fear that any attempt to read it now must prove vain. I enclose as correct a copy as I could take of the two first lines, together with a heading which I suspect to be newer than the rest. What I now transmit is the most distinct portion of the inscription; perhaps an impression of what remains of the letters might be got, and if you think that there would be any advantage in attaining this object I shall endeavour to have it effected. This pillar is entirely round and is smaller than that at *Kuhaon*, but of the same description of material; viz. hard compact sandstone; it is 17 or 18 feet in height and about 20 inches in diameter; nothing beyond the shaft remains standing; but a portion of a capital lies near, and a *bairági* who occupies a hut close by reported, that five years ago a storm upset a *trisula* and *singh* from the column, and that the fragments of the ruins had been stolen by travellers. The *bairági*'s information was not

confirmed to the full extent by replies to questions put to other men who had known the column from a period long anterior to that assigned to the destructive tempest.

An attempt has been made to cut this column into two pieces at the elevation at which the inscription occurs; the perpetrators of the mischief, however, have begun their work in a quarter in which there are no letters: the writing is on the eastern aspect, the cutting has been commenced on the west side. The greater dilapidation of this column compared with that at *Kuhaon* may perhaps be accounted for by *Bhāgalpur* being a public ferry on the *Gogra* river, and by such an object consequently being more obnoxious to injury from the rude hands of bigotted strangers here than at the other more retired locality.

The bairāgi stated that the pillar had been created in honour of five brothers, and pretended to read the first two lines thus in Sanskrit as he alleged, though the last words are plain Hindui.

Bheem Lukoa Aujiē Sahdeo Deodustul sadēe punchma.....Sowa Lakh roopeea khurj luga hy.....

The five Bheems whose names are here given our cicerone told us had come from *Delhi* and conquered *Nipal*. He mentioned the *Bettiah Lat* as connected with this and the one at *Kuhaon*, but he said there were no other in the *Gorakhpur* district, and this assertion is confirmed by answers to inquiries made of other intelligent natives who know the district well.

III. At *Serga* a village in pergunnah *Sidowa Jobena*, about three miles north of *Samour* (a stage on the road from *Chupra* to *Gorakhpur*, and where the traveller first enters zillah *Gorakhpur*) are some stone images nearly the size of life; they have been disfigured in a similar manner to that of *Mata Konr* at *Kusseca* of which I sent a notice to the *Journal* some months ago, though a representation of a group of dancers of small proportions has escaped nearly untouched.

The most remarkable of the idols is one of *Bhowanee* or *Durga*. This has been sadly mutilated; what formed the nose has, I suppose, been originally let into the stone out of which the image is cut, and this has been removed, giving the figure the appearance of a person in an advanced stage of a loathsome disease. Little respect is paid to this statue, owing it may be to this revolting appearance; the brahman of the neighbouring village is, however, called on occasionally to officiate at the shrine when a rare votary makes his or her appearance.

The figure which is rather well carved is that of a young girl who has hardly arrived at puberty. There are or have been eight arms some of which have been removed, but it is not said that the goddess has had

the power or inclination to protect or avenge herself as *Mata Konr* is said to have done. This image is alone. About half a mile to the west there is another of a different divinity of ruder workmanship and deeply sunk in the ground. It is here that the group of dancers above mentioned is met with on a separate slab of very heavy stone.

All these objects have ceased to attract much respect or even to excite much interest, and seem the remains of a people or of a religion that has passed away. Though taking a somewhat lively interest in remains of this sort, it has been by accident that those of which I have given this notice have come under my observation. I had been encamped at *Bhāgalpur* several times, and for days together before I heard of the pillar at that village, and, in consequence, of the more entire one at *Kuhaon*. It is not indeed easily found, being situated in a small mango tope and close by one of the trees. That at *Kuhaon* stands isolated and is a conspicuous object to the passing traveller from every side.

Note on the above inscriptions from Gorakhpur, by J. P.

The mutilated fragment of the inscription on the column at *Bhāgalpur*, is of a comparatively modern date, being in the *Kutīla* character: the two lines given as a specimen in Pl. I. are surmounted by the words राज जोगी *rāja jogī*, in a still more recent character as suspected by Mr. LISTON: and nothing of the five Pāndavas or of the expenditure of 1½ lakhs so impudently asserted by the *bairāgī* is to be found there. Mr. L. has since forwarded us a printed impression of the whole, but it is quite illegible.

The *Kuhaon* inscription is however of a much more interesting character. Perceiving from the copy which accompanied the above note, that it was in the *Chandra Gupta* (or for shortness sake the *Gupta*) alphabet, I requested the author to take off an impression from the stone itself, which he has since done with entire success, acknowledging that with all the care he had taken in his former copy there were discrepancies and redundancies which he could have believed impossible.

The facsimile is introduced on a reduced scale into Plate I. It is in excellent preservation, and the versification, in the *Srigdhara* measure complete throughout. At the head of the second and third lines only there are a couple of superfluous letters introduced, in the former सि and in the latter ङ: which I presume should be read together as सिङ्ग *siddha*, 'accomplished'—or it may be the name of the sculptor. After transcription, my pandit KAMALA' KĀ'NTA readily furnished me with the interpretation of this curious monument, which I accordingly annex in modern Devanāgarī and translation:

Transcript in Modern Devanāgarī.

यस्योपस्थानभूमि ऋषतिशतशिरःपातवातावधूता
 गुप्तानां वन्शजस्य प्रविष्टतयशसस्तस्य सर्वात्तमर्द्धः
 राज्ये शक्रोपमस्य क्षितिपशतपतेः स्कन्दगुप्तस्य शान्तेः
 वर्षे त्रिंशदृशैकोत्तरकशततमे ज्यैष्ठमासि प्रपन्ने
 ख्यातेस्मिन्ग्रामरत्ने ककुभः रति जनैस्त्राधुसंसर्गपूते
 पुत्रो यस्मिन् मिलस्य प्रचुर गण निधे भद्रि सोमो महात्थः
 तत्सुनूरुद्रसोमः प्रथुलमति यशा व्याघ्रः रत्यन्यसंज्ञो
 मद्रस्तस्यात्मजो भूद्विजगुरुयतिषु प्रायशः प्रीतिमान्थः
 पुण्य स्तान्धं स चक्रे जगदिदमखिलं संसरद्दीक्ष्य भीतो
 श्रेयोत्थं भूतभूत्यै पथि नियमवतामर्हतामादिकर्तृण्
 पञ्चेन्द्रां स्थापयित्वा धरणि धरमयान्सन्निखातस्ततोयाण्
 शैलस्तम्भः सुचारुगिरिवरशिखराग्रोपमः कीर्ति कर्त्ता *

* The following errors of orthography are noted by the pandit: applying न before श and ग in the second fourth lines. The insertion of *visarga* in ककुभःरति and व्याघ्रःरति भीतो for भीतः in the ninth line: the ए final of the tenth and eleventh lines, which should both be न; and खान्त स्ततोयां in the 10th which should be खान्तस्थतोयां.

Translation.

“ In the month of *Jyaistha*, in the year one hundred and thirty-three† after the decease‡ of SKANDA GUPTA, the chief of a hundred kings, resembling INDRA in his rule, possessed of the chiefest of riches, enjoying far-spread reputation, born of the royal race of the GUPTAS, whose earthly throne was shaken by the wind of the bowing heads of a hundred kings.

At this celebrated and precious village, sanctified in reverential attachment by the inhabitants of *Kakubharati*§.

The opulent BHATTI SOMA was the son of AMILA, the receptacle of good qualities. His son was the very famous and talented RUDRA

† Lit. “ The month *Jyestha* in the year thirty and two and one plus one hundred, being arrived.”

‡ *Shantéh*, of the repose, i. e. death.

§ Written *Kakubhahrati* ककुभः रतिजनैः (sic): the meaning must be that such was the name of the village; and probably the modern *Kuhaon* may be a corruption of the ancient appellation *kakubha*.

SOMA, known by another appellation as VYAGHRARATI*. His own son was MADRA, the constant and friendly patron of *brahmans*, *gurus*, and *yatis*. He, struck with awe at beholding the universal instability of this world, made (for himself) a road of virtue†; having set up (established) along the roadside, five images, made of quarried stone, of INDRA, objects of adoration to the religious and devout, for the increase of his own moral merit and the happiness of mankind; (the same) having attached thereto a tank filled with water.

This stone pillar, beautiful and lofty as the craggy pinnacles of the mountains, is the maker of renown: (i. e. records his meritorious act.)"

The circumstance of chief importance in the above monument, is its allusion to 'SKANDA GUPTA, of the family of the GUPTAS,' a name so well known to us from the *Bhitari* inscription and from our *Canouj* coins. That his sway was nearly as potent as the expression 'lord of a hundred kings' would seem to convey, I shall have hereafter occasion to prove by the exhibition of his own name and of that of his predecessor KUMÁRA GUPTA on the coins of *Saurashtra* or *Kattywár* on the western extremity of the Indian continent. The death of this prince is here employed as an epoch in a somewhat enigmatical way. According to the ordinary mode of interpretation, the several figures should be set down from the right to the left hand; thus $30 + 2 + 1 + 100$ should be written 1001230; but, as this would be evidently ridiculous, I have rather summed the whole together as '133 years after the death of SKANDA.' It does not appear who succeeded him, or whether the GUPTA dynasty there terminated; but I think it is open to conjecture that the whole power was usurped by the minister's family, because we find TILA BHATTI, a chief magistrate, erecting the *Allahabad* pillar, and we here find a nother of the same name, the opulent BHATTI SOMA, the son of AMILA (BHATTI?) at the head of a new race, not to be sure arrogating to themselves the title of *rāja*, but possessing wealth and power and erecting pillars in their own name. Four generations from AMILA, viz: 1 AMILA, 2 BHATTI SOMA, 3 RUDRA SOMA, 4 MADRA—will give about 33 years to each generation, which for private life may be tolerably near the ordinary average.

The five *Indras*‡ may possibly be the five figures stated by Mr. LISTON to be carved, four on the upper part, and one on the lower of

* *Punyaskandham sa chakkre*: in punning allusion perhaps to his adorning the road with these five images.

† The word seems to be written *Pachaindrām* from the contracted space occupied by the *n* of पञ्च. The small figure below has very much the character of Buddha.

‡ The lover of (the hunting of) tigers.

*Facsimile of an Inscription on a mutilated Buddha
at ISKARDO in Little Tibet.*

॥॥ सुयुक्तं य
यदायुक्तं इत्येव ।
चमकेवरमर्दे इति सुखं यथा यथा ॥ गुद
श्रीसुप्रदायैः सवपुदुदरं युक्यमकुके
मदपवदद । सुदु सुकुक्तं कदगुप । ददपठक
पूयस्युस्य । सुसु सुसु । केक ॥ सवपुदु
मकेद । गकस्यु । कवमु ३ यथा यथा इति सु

Vign. des.



SEAL of SIVA on the Delal Ben Copper Plate Grant, PLIII.

Inscription on image of Parināth dug up at Ajmer.

१ सं १२३५ फा सुदि ४ सुप्रौसा धुवात्ता तार्या मदन श्री प्रत्रपा म
नाह डेत य हि तना वप्रं तिमा कारा पिताः ।

J. Prinsep del.

“ — the eighty excellencies of the body (visible in the image representing BUDDHA) also (too or again), for a long time (for long continuance sake)—with collected clean offerings, by every one the eight-fold prostration (i. e. touching the ground with his two feet, two knees, two hands, the breast and the forehead) and prayer at large must be performed. And then afterwards also, by the faithful ones, at certain times, the paint (or color) must be cleansed, and the Sacristan (he that has charge of the image) must inviolably observe the established rule.”

✓ *Copperplate Grant from Bâkerganj.*

This plate was presented in November last, to the Society, on my solicitation, by Bahoo CONOYLAL TAGORE, in whose possession it had remained for some months previous, having been dug up in the *char* land, or land deposited by river inundation, of a *zemindâri* or estate belonging to him in perganna *Edilpur*, zilla *Bâkerganj* about 120 miles directly east of Calcutta.

No little curiosity has been astir among the Baboos of Calcutta to ascertain the contents of this curious document, as it is I believe the first that has been discovered treating of the *Bellâla* kings of Bengal. I should not have thought it possible from the appearance of the copper, which is in perfect preservation, and still sharp in the letters, that the plate could have been long buried in the place where it is stated to have been found. The seal, which is an elaborately executed figure of *SIVA* cast in copper, of great delicacy and taste, is uninjured by time even in the minute limbs and weapons which protrude undefended from the trunk. I have given a very rough sketch of this seal in Pl. II. of the natural size, and certainly it bears evidence of having been somewhere preserved with the greatest care for the seven centuries which have transpired since it was engraven, and of its having been only recently buried in the alluvial ground, perhaps by the upsetting of some boat traversing the spot during the inundation.

Seeing the depth and perfection of the engraving, I endeavoured to print off directly from the plate a facsimile of the writing on both sides, by inking the surface with printer's ink and carefully pressing upon it a moistened sheet of paper:—the impression thus taken I immediately passed between rollers with a plain sheet so as to obtain a reversed or rather rectified facsimile fit for transfer to a lithographic stone. With the assistance of the officers of the government lithographic press I at length succeeded in effecting the triple transfer with tolerable success, retouching the writing on the stone where the letters had become too much filled up by the operation. We have thus in Pl. III. a copy of the whole which, though imperfect in the finer strokes is legible throughout, and more trustworthy than any copy made by the eye alone. M. JACQUET of Paris, I fancy, employs the same method in lithographing inscriptions both from plates and stones. Their size renders the latter inconvenient.

The character of this inscription is rather less simple than the earlier alphabets of the *Pâla* dynasty. It is strictly the *Gaur* character whence has descended the modern written Bengâlî*.

* It is much to be regretted that when first a fount of Bengâlî type was prepared, the letters were made after the model of the running hand or writing instead of this which may be called the *print* hand. Had the latter been taken, the dif-

GOVINDA RA'MA, the Society's pandit was entrusted with the transcription of the contents ; and his work was revised, where difficulties occurred, by KAMALA'KA'NTA : while the English version was made under their explanation by young SA'ROD'APRASA'DA.

The purport of the whole is, a grant in perpetuity to a brahman named ISWARA DEVA SARMA, of the Vātsa tribe, of the villages of *Bôgulé Bettogāta* and *Udyamūna* situated between four equally unknown places in *Banga*, or Bengal: unless *Garhaghataka* be *Ghoraghāta* in the *Dinājpur*, or *Vikramapur* the place of that name in the Dacca, district. The mention of tanks of fresh water, with houses built on the raised banks for protection against inundation,—of the neighbouring jangal in the west, and of the saline soils, is in favor of the locality being in the *Bākerganj* district itself, on the edge of the *Sundarbans* where sea salt is still manufactured. Probably the *Chanda Bhandā* tribe made over as property along with the soil may have been the poor class named from this tract (quasi *Sandabanda* as indeed it is generally pronounced) employed in the salt works, and like the modern *Molangis*, only a step or two removed from slavery.

Regarding the *Vaidya* dynasty of Bengal (so called from its founder being of the medical caste) there is the same uncertainty as in almost all other portions of Indian history. Some make ADISUR the progenitor, he who is stated to have applied to the reigning king of *Canowj*, *Kanyakubja*, for a supply of brahmans for the Bengal provinces ; but the catalogues recorded on good authority in the *Ayīn Akberī* place the whole of the *Bhupāla* dynasty, extending to 698 years, between ADISUR and SUKH SENA the father of BALLA'LA SENA who built the fort of *Gaur*. No mention of either of these parties is made in the present inscription, but on the contrary the father of BALLA'LA SENA is distinctly stated to be VIJAYA SENA ; and as this is I believe the first copperplate record of a grant by the family, we should give it the preference to books or traditions, on a point of history so near its own time : for KṢṂAVA SENA is but the fourth in descent from VIJAYA, on the plate ; or the fifth, if we take ABUL FAZL's list.

*Ayīn Akberī list.**Inscription.*

1063 SOOKHSEIN, reigned.....	3 yrs.	VIJAYA SENA.
1066 BILLALSEIN,.....	50	BALLA'LA SENA.
1116 LUKHENSEIN,.....	7	LAKSHMANA SENA.
1123 MADHOWSEIN,.....	10	
1133 KYSOOSEIN,.....	15	KṢṂAVA SENA.
1151 SUDDASEIN,.....	18	considered the last by the Bengālis.
1154 NOWJEH, or	3	
1200 (LAKSHMANIYEH) the last.		

ference between it and the Devanāgarī is so slight that gradually they would have become amalgamated ; at any rate the reader would with facility have perused both, instead of deeming them, as now, distinct characters.

It is curious that wherever the name of KESAVA SENA occurs on the plate, there are marks of an erasure; as if the grant had been prepared during the reign of MA'DHAVA SENA, and, on his dying before it was completed (for such a plate must have taken a long time to engrave), the name of his successor KESAVA, fortunately happening to be of the same prosodial quantity, was ingeniously substituted, and *mutato nomine*, the endowment was completed and promulgated. KESAVA must have been in this case the brother of MA'DHAVA.

Little of the historical occurrences of KESAVA's reign are to be gathered from the inflated eulogistic style common to this species of composition. It is said in general terms that he kept his enemies in awe, that he was religious and bountiful to the priesthood. There is considerable poetical ingenuity in the triple similes applied to the smoke of his sacrificial fires, and to that of the sparkling of the moon-beam in the second verse. The allegory of the bird with two dissimilar wings at the opening of the inscription might be thought to apply rather to the moon than the sun; but the SURYA SIDDHANTA, according to the pandit, shews that the sun has as much to do with the phenomena as the moon—or in fact that the moon, when east or west is, as it were, a wing to the sun:—thus

यर्कादिनिःसृतः प्राचीं यद्यात्यहरचःशशी
भागैर्द्वादशभिस्तस्यातिथिचान्द्रमसंदिनं ॥

"From the sun retreating eastward when goes each day the moon by twelve degrees, that forms the *tithi*—the moon's day."

The title of *Sankara Gaureswara* applied to all the members of the family may mean either the auspicious lord of the city of *Gaur*; or it may convey a sly hint, by the substitution of शङ्कर for सङ्कर (mixed race) of the inferior caste of this *Sena* dynasty.

Nothing is said of the miraculous descent of BALLALA SENA, as before remarked: but he is said to have worshipped *Siva* for many hundred years (in former generations) to obtain so famous a son as LAKSHMANA SENA, who seems to have been the hero of the family, erecting pillars of victory and altars at *Benares*, *Allahabad* and *Jogannátha*. It may however be reasonably doubted whether these monuments of his greatness ever existed elsewhere than in the poet's imagination.

The date of the grant is very clearly written in the lowermost line सं३चैष्ठदिने *sumvat 3 jyaishta dine* ... but the rest is not legible. The third year doubtless refers to the reign of KESAVA SENA, which brings the age of the plate to the year 1136 of our era.

Here follows GOVINDARA'MA's version of the text:

चो नमो नारायणाय ॥ वन्देऽरविन्दवनबान्धवमन्धकारकारानिबद्धभुव
 नत्रयमुद्धरन्तं ॥ पथ्यायविस्तृतसितासितपक्षयुग्ममुद्यान्तमद्भुतखगं निगम
 द्रुमस्य ॥ १ ॥ पर्यन्तरुफटिकाचलां वसुमतीं विश्वगिवमुद्रीभवन्मुक्ता
 कुङ्कुलमब्धिमम्बरनदीवन्यावनत्वं नभः । उद्भिन्नस्मितमञ्जरीपरिचितादिक्
 कामिनीः कल्पयन् प्रत्युन्मीलतु पुष्पसायकयशोजन्मान्तरश्चन्द्रमाः ॥ २ ॥
 एतस्मात् क्षितिभारनिःसहशिरादर्वीकरग्रामणीविश्रामोत्सवदानदी
 क्षितभुजास्ते भूभुजो जज्ञिरे । येषामप्रतिमल्लविक्रमकथारब्धप्रबन्धाद्भुत
 व्याख्यानन्दविनिद्रसान्द्रपुलकैर्व्याप्ताः सदस्यैर्दिशः ॥ ३ ॥ अवातरदथा
 न्वये महति तत्र देवः स्वयं सुधाकिरणशेखरो विजयसेन इत्याख्यया ।
 यदंघ्रिनखधारणिस्फुरितमौलयः क्षामुजो दशास्यनतिविभ्रमं विदधिरे
 किलैकैकशः ॥ ४ ॥ नोलाम्भोरुहसोदरोपि दलयन्मर्माणि कादम्बिनी
 कान्तोपि ज्वलयन् मनांसि मधुपस्त्रिग्धोपि तन्वन् भयं । निर्णिक्ताञ्जन
 सन्निभोपि जनयन् नेत्रकमं वैरिणां यस्याशेषजनाद्भुताय समरे कौशे
 यकः खेलति ॥ ५ ॥ भासन्निस्त्रिंशनिद्राविरहविलसितैर्वैरिभुपालवंश्या
 नुच्छिद्योच्छिद्य मूलावधि भुवमखिलां शासतो यस्य राक्षः । आसीत्ते
 जोजिगीषा सह दिवसकरेणैव दोषास्तुलाभूद्भद्रैवाशीविषाणामजनि
 दिगधिपैरेव सीमाविवादः ॥ ६ ॥ खेलत्खङ्गलतापमार्जनहृतप्रत्यर्थिदर्प
 ज्वरस्तस्मादप्रतिमल्लकीर्तिरभवदल्लालसेनो नृपः । यस्यायोधनसीमि
 शोणितसरिदुःसञ्चरायां हृताः संसक्तद्विपदन्तदण्डशिविकामारोप्य वै
 रिश्रियः ॥ ७ ॥ श्रीकान्तोपि न मायया बलिजयी वागीश्वरोप्यक्षरं
 वक्तुं नेत्यपटुः कलानिधिरपि प्रोन्मुक्तदोषाग्रहः । भोगीन्द्रापि न
 जिह्वगैः परिवृतस्त्रैलोक्यवेशाद्भुतस्तस्मात्तद्व्याणसेनभूपतिरभूद्भूलोककल्प
 द्रुमः ॥ ८ ॥ प्रत्यूषे निगडस्वनैर्नियमितप्रत्यर्थिपृथ्वीभुजां मध्याह्ने जल
 पानमुक्तकरभप्रोद्गोलघण्टारवः । सायं वेशविलाशिनीजनरणन्मञ्जीर
 मञ्जुस्वनैर्येनाकारि विभिन्नशब्दघटनावन्धं त्रिसन्धं नभः ॥ ९ ॥ नूनं
 जन्मशतेषु भूमिपतिना सन्त्यज्य मुक्तियद् नूनं तेन सुतार्थिना सुरधुनी

तीरे भवः प्रीणितः । एतस्मात् कथमन्यथा रिपुबध्वैधव्यवत्त्वत्रतो वि
ख्यातः क्षितिपालमौलिरभवत् श्रीविश्व वन्द्यो नृपः ॥ १० ॥ न गगण
तलएव शीतरश्मिर्न कनकभूधर एव कल्पशाखी । न विबुधपुर एव देव
राजो विलसति यत्र धरावतारभाजि ॥ ११ ॥ बाह्व वारणहस्तकाण्ड
सदृशौ वक्षः शिलासंहतं वाणाः प्राणहरा द्विघां मदजलप्रस्यन्दिनो
दन्तिनः । यस्यैतां समराङ्गप्रणयिणो कृत्वा स्थितिं वेधसां को जाना
ति कुतः कृतो न वसुधाचक्रेनुरूपोरिपुः ॥ १२ ॥ वेलायां दक्षिणाब्धेर्भूष
लधरगदापाणिसंवासवेद्यां क्षेत्रे विश्वेश्वरस्य स्फुरदसिवरणाश्वेवगङ्गेर्म्मि
भाजि । तोरोत्सङ्गे त्रिवेण्याः कमलभवमखारम्भनिर्व्याजपूते येनोच्चैर्यज्ञ
यूपैः सह समरजयस्तम्भमाला न्यधायि ॥ १३ ॥ यान्निर्म्माय पवित्र
पाणिरभवत् वेधाः सतीनां शिखारत्नं या किमपि स्वरूपचरितैर्विश्वं
ययालंकृतं । लक्ष्मोर्भूरपि वाञ्छितानि विदधे यस्याः सपत्न्यौ महाराज्ञी
श्रीवसुदेविकास्य महिषी साभूचिवर्गाचिता ॥ १४ ॥ एताभ्यां शशि
शेखरगिरिजाभ्यामिव बभूव शक्तिधरः । श्रीकेशवसेनदेवः प्रतिभभू
पालमुकुटमणिः ॥ १५ ॥ दृष्टिस्थानमवाप्य विश्वजयिनो यस्य द्विजानां
पयः पात्रैर्लोहमयैर्हिरण्यपदवीप्राप्तेति को विस्मयः एतस्मिन्नियमाद्भु
ताय महति प्रत्यर्थिपृथ्वीभुजां यत्पात्राणि हिरन्मयान्यपि पुनर्यातान्यथो
वर्णतां ॥ १६ ॥ आकौमारमपारसङ्करभरव्यापारदृष्ट्यावशस्वान्तस्यास्य
निशम्य वीरपरिषदन्त्यास्पदो विक्रमं । निद्रालुं दयितां विहाय चकितै
र्दुर्गं प्रवेश्य द्रुतं निर्गच्छद्भिरुरातिभूपनिवहैर्भास्यद्भिरैवास्यते ॥ १७ ॥
आकर्णाक्षलमेलकारविशिखक्षेपैः समाजे द्विघां दानाम्भः कणगर्भदर्भं
कलनैर्गोष्ठीषु निष्ठावतां । नीवीबन्धविसारणैः परिषदि त्रस्यत्कुरङ्गी
दृशामव्यापारसुखासितां क्षणमपि प्राप्नोति नैतत्करः ॥ १८ ॥ तापिञ्चैः
परिशीलितैव सरितां कच्छस्थलीनीरदैर्नीरन्ध्रेव नभस्तटी मरकतैः
क्लृप्ता भुवः प्लारुहः । नीलयावकदम्बकैरविरलाभोगेव मुक्तावली लेखा
सीददसीययज्ञजतभुग्धूमावली खेलति ॥ १९ ॥ कल्पप्लारुहकाननानि

कनकधामभूदिभागात्रिधिरत्नानां पुलिनान्तराणि च परिभ्रम्य प्रया
 सालसाः । एतत् पादपयोधरप्रणयिनि च्छायावितानाञ्चले विश्राम्यन्ति
 सतामनिद्रविदशोद्भ्रान्ता मनोवृत्तयः ॥ २० ॥ किमेतदिति विस्मया
 कुलितलोकपालावलीविलोकिताविष्टकुलप्रधनजैत्रजात्राभरः शशास ए
 थिवीमिमां प्रथितवीरवर्गाग्रणीः सगन्धपदनान्वयः प्रलयकालरुद्रो
 नृपः ॥ २१ ॥ पद्मालयेति या ख्यातिर्लक्ष्म्या एव जगत्त्रये सरस्वत्यपि तां
 लेभे यदाननक्ततालया ॥ २२ ॥ आरुह्या भ्रंलिहृष्टहृष्टिखामस्य सौन्दर्यं
 लेखां पश्यन्तीभिः परिविहरतः पौरसीमन्तिनीभिः वार्त्ताकूतैर्नयन
 चलितैर्विभ्रमं दर्शयन्त्यो दृष्टाः सख्यः क्षणविघटितप्रेमरक्षैः कटाक्षैः
 ॥ २३ ॥ एतेनोन्नतवेषसङ्कटभुवास्त्रोतस्वतीसैकतक्रीडालोलमरालको
 मलकजत्काणप्रणीतोत्सवाः । विप्रेभ्यो ददिरे मही मधवतानेकप्रतिष्ठा
 भृतापारप्रक्रमशालिशालिसरलक्षेत्रोत्कटाः कर्बटाः ॥ २४ ॥ इह खलु जंबु
 यामपरिसरश्रीमज्जयस्कन्धावातारात् समस्तस्वप्रशस्त्युपेत अरिराज
 सूदन शङ्करगौडेश्वरश्रीमद्विजयसेनदेवपादानुध्यातध्यतसमस्तस्वप्रशस्त्ये
 पेत अरिराजसूदनशङ्करगौडेश्वरश्रीमदक्षालसेनदेवपादानुध्यातसमस्तस
 प्रशस्त्युपेत अरिराजसूदनशङ्करगौडेश्वरश्रीमल्लक्ष्मणसेनदेवपादानुध्यात
 समस्तस्वप्रशस्त्युपेत अश्वपतिगजपतिनरपतिराजत्रयाधिपतिशेनकुलकम
 लविकाशभास्करसोमवंशप्रदीपप्रतिपन्नदानकर्णसत्यव्रतगाङ्गेयशरणागत
 वज्रपञ्जरपरमेश्वरपरमभट्टारकपरमशौरमहाराजाधिराज अरिराजघा
 तुकशङ्करगौडेश्वरश्रीमत्केशवसेनदेवपादाविजयिनः समुपगताशेषराज
 राजन्यकराक्षीवालकराजपुत्र राजामात्यमहापुरोहितमहाधर्माध्यक्षा
 महासान्धिविग्रहिकमहासेनापतिमहादैःसाधिकाचारोद्धरणिकनौबल
 हस्त्यश्वगोमहिषाजाविकादिब्यापृतगैाल्मिकदण्डपाणिकदण्डनायकनेयग
 पत्यादीनन्यांश्च सकलराज्याधिपजीविनोध्यक्षानध्यक्षप्रवरांश्च चट्टभट्ट
 जातीयान् ब्राह्मणब्राह्मणोत्तरांश्च यथाहं मानयन्ति बोधयन्ति समा
 दिशन्ति च विदितमस्तु भवतां यथापौण्ड्रबद्धनभुक्त्यन्तःपातिवक्त्रे विक्रम
 पुरभागप्रदेशेप्रशस्तलताटघडाघाटके पूर्वसत्रकाधीयाममःसीमादक्षिणे



साङ्करवशागोविद्धवानानान्तःभूः सीमापश्चिमेगङ्गाकापागादाङ्गयसरया
मः सीमोत्तरे वागुलीङ्घिगातात्तद्यमानभूः सीमाइत्थं यथाप्रसिद्धस्वसी
मावच्छिन्नावृहन्नृपतिचरणैः शुभवर्धवृद्धौ दीर्घायुष्टकामनया समुत्सर्गिता
सा तदायोत्पत्तिका साश्वभूमिः (ससादाविविधवासगर्तासरासजलस्थला
खिलपलाशगुवाकनारिकेललताचण्डभण्डप्रवेशावतिर्यन्ता आचन्द्रार्कक्षि
तिसमकालं यावत् दिनं तत्सजलनानापुष्करिण्यादिकं कारयित्वा
गुवाकनारिकेलादिकं लग्नापयित्वा पुत्रपौत्रादिसन्ततिक्रमेण स्वच्छन्दो
पभोगेनोपभोक्तुं वत्ससगोत्रस्य भार्गवच्यवनआप्नुवत् और्वजामदग्न्य
पञ्चप्रवरस्य पराशरदेवशर्मणः प्रपौत्राय वत्ससगोत्रस्य तथापञ्चप्रवरस्य
गर्भेश्वरदेवशर्मणः पौत्राय वत्ससगोत्रस्य तथा पञ्चप्रवरस्य वनमाली
शर्मणः पुत्राय वत्ससगोत्राय भार्गवच्यवनआप्नुवत् और्वजामदग्न्यपञ्चप्र
वराय श्रुतिपाठकाय श्रीश्वरदेवशर्मणे ब्राह्मणाय सदाशिवमुद्रया मुद्र
यित्वा दुतीयाकीयज्यैष्ठ्यादिना भूक्तिर्न्यायेन चण्डभण्डदण्डताम्रशास
नीकृत्य प्रदत्ता यत्र चतुःसीमावच्छिन्नशासनभूमिर्हि ॥ ३०० ॥ तद्भवद्भिः
सर्वैरेवानुमन्तव्यं भाविभिरपि नृपतिभिरपहरणे नरकपातभयात् पालन
धर्मगौरवात् पालनीयं भवन्ति चात्राधर्मानुशंसिनः श्लोकाः ॥ आरुफोट
यन्ति पितरो वर्णयन्ति पितामहाः भूमिदोऽस्मत्कुले जातः सनस्त्राता
भविष्यति भूमिं यः प्रतिगृह्णाति यश्च भूमिं प्रयच्छति उभौ तौ पुण्य
कर्माणौ नियतं स्वर्गगामिनौ वज्रभिर्वसुधा दत्ता राजभिः सगरादिभिः
यस्य यस्य यदा भूमिस्तस्य तस्य तदा फलम् स्वदत्तां परदत्तां वा यो हरेत्
वसुन्धरां स विष्ठायां कृमिर्भूत्वा पितृभिः सह पच्यते षष्टिवर्धसहस्राणि
स्वर्गे तिष्ठति भूमिदः आक्षेप्ताचावमन्ता च तान्येव नरके वसेत् सर्वेषां
मेव दानानामेकजन्मानुगं फलं ॥ इति कमलदलांबुविन्दुलोलां श्रियमनुचि
न्य मनुष्यजीवितश्च सकलमिदमुदाहृतश्च बुद्धा नहि पुरुषैः परकीर्तयौ
विलोप्याः ॥ सचिवशतमौलिलालितपदाम्बुजस्थानुशासनभूतः

श्रीयुतदत्तोद्भवगौड महामभक्तकः ख्यातः श्रीमन्मह्यसा करणनि
श्रीमहामदनक करणनि श्रीमत् करणनि ॥ सं ३ ज्यैष्ठदिने.....



Translation by Sârodâprasâda Pandit.

Aum ! Salutation to NA'RA'YANA !

1. I pray to the rising paradoxical bird (or the sun) of the tree of holy writ (the *Veda*) the friend of the waterlily bushes, the deliverer of the three worlds confined in the prison of darkness, who spreads abroad alternately his wings one white and the other black (the semilunations). May that moon shine propitious, who revivifies the fame of him who wears the flowery shafts (KA'MA), making by his rays the airy sphere as it were spread over by the water of the heavenly river, the earth as if scattered over with crystalline mountains, the ocean as if filled with pearls unfolded, and the sides resembling women adorned with the blowing spikes of flowers.

3. Of this line (the *Chandra vamsa*) was born a race of kings, whose hands were employed in giving rest to the chief of serpents, oppressed with the weight of the world; whose courtiers filled every side of the world, and the explanation of whose works, written in incomparable strings of words, is delightful.

4. In this noble line was born a rāja by the name of VIJAYA SENA, as an incarnation; who was as it were himself the god who wears a crescent on his head; at whose toe nails the rājas putting their heads (bowing) made others mistake them for the bow of the ten-headed (RA'VANA).

5. Whose sword plays in the war to the astonishment of all people, and which (sword) though like the blue lily crushes the spirit of men, though beautiful like the clustered clouds gives pain to the heart of men, though black shining like the *madhūpas* (black honey bees) is an object of terror, and though like smeared kajjala*, is painful to the eyes of his enemies.

6. He, this rāja, had the desire of overcoming the sun in glory (with respect to his spirit), who governed this whole earth by rooting out the families of the inimical royal lines by the sleepless attempt of his shining sword: whose (the rāja's) hands were properly compared to serpents; and who was in disagreement with the lords of the cardinal points (*Dikpāla*) for the boundaries (of his possessions).

7. From him was born BALLA'LA SENA, who by his creeping-plant-like playing sword stole sweeping the heat of the pride of his enemies, whose fame was unrivalled, and by whom was stolen the Lakshmi (or wealth) of his enemies, being placed in an elephant-tusk-like palanqueen at the limit of the field of battle which was impassable on account of the river of blood.

8. From him was born LAKSHMANA SENA, who was the *kalpa-drūma* (tree of desire) of the earth; who, though master of immense wealth, did not conquer the bold by stratagem (but by force); though master of *Kala†* (the moon) did not accept the *dosha‡*; and could not say "No" though he was

* Considered as a collyrium being applied upon the eyelashes or eyelids medicinally or ornamentatively.

† The word *kalé* has two meanings, the 64 qualities and the digits or minutes of a degree.

‡ The word *dosha* has two meanings,—faults when with rāja, and night when with moon.

acquainted with all the words; and who, though the most happy of men (or the *bhogindra*, lord of *sesndg*) was not surrounded by the double-minded (or snakes).

9. Who (the *rāja*) caused three different sounds to be made to the sky in the three *Sandhyās* (the three periods of a day, the dawn, the noon, and the evening). In the dawn the sounds of the iron chains of those imprisoned *rājas* who were his enemies; at the noon the loud ringing of the bells on the young elephants and camels, led forth to be watered; and in the evening the pleasing sounds of the *manjīras* (ornament for the feet or toes) of female visitors, beautified by their evening dresses.

10. The *rāja* (BALLA'LA SENA) being desirous of having a son, left all kinds of enjoyment and assiduously worshipped HARA (SIVA) in many hundred prior births on the bank of *Suradhuni* (*Gangā*) for the birth of this prince; otherwise so famous a prince (LAKSMANA SENA) would not have born from him, who was the head of all *rājas* and praised by the universe, and whose resolution widowed the wives of his enemies.

11. Who when born and existing on the earth, the moon was no longer solely on the firmament; nor the kalpa tree on the golden mountain, neither the chief of the gods only in the city of the *Devas*, (i. e. they were here also).

12. Who knows why the creator, having made his fond stay in the field of battle, did not create his rival enemy in this sphere of the earth? His hands were like the trunks of elephants and his breast hard as stone; his shafts were fatal to his enemies and his elephants were exuding juice from their heads.

13. By him were erected many pillars for victories in battle, high sacrificial posts near the altar of *Mushaladhara* and *Gadāpānī* (*Balarāma* and *Jagannātha*) situated on the coasts of the South Sea; at the holy place of *Viśvēswara*, (or at *Kāshi*) where fall the streams of *Asi* and *Varanā*, into the waves of *Gangā*; and on the banks of *Trīvēnī* (*Allahabād*), which became truly sacred and pure, for its being the place where he who was born from lilies (BRAMHA) commenced his sacrifice.

14. His chief queen was VA'SU'DEVI' the jewel of the heads of *Satīs**, and after creating whom the creator thought his hands to have been sacred; whose astonishing charms and conduct adorned the universe, and whose *Sapatnīs*† Earth and Laksmi fulfilled her every desire. Nay she was worthy of obtaining the *Trivargas* (or the three human objects of pursuit, viz. virtue, wealth, and love.)

15. From them was born KEṢAVA SENA DEVA, who was the jewel of the crown of his inimical *rājas*, as was born SAKTIDHARA (*Kārtika*) from him who wears a crescent on his head and GĪ'RYA' (the mountain-born goddess).

16. It is not wonderful that at the glance of him, who conquered the universe and turned the golden vessels of adverse *rājas* into iron, that the iron drinking-vessels of the *brāmans* should be turned into gold!

17. The multitude of his inimical *rājas* hearing of his strength, instantly starting with fear and leaving their dear sleeping consorts, quickly enter-

* Virtuous women, who burn themselves with their husbands' corpses.

† A woman whose husband marries other wives.

ed their ramparts and being disappointed of a firm shelter there, immediately came out and are wandering here and there ; whose (the rája's) mind was devoted from his childhood to the occupations of numerous battles and whose station was praised by the assembly of heroes.

18. The hands of this rája were not for a moment inactive,—towards his foes in firing arrows drawn home to his ear,—among the assembly of polite men in hold the *darvha* (sacrificial grasses) moistened with the drops of water, for consecrating gifts,—and among bashful lovely-eyed women in loosening their waist cloths.

19. The smoke of whose burnt-offerings plays over the world, making it appear as though the banks of rivers are skirted with *Tápinja* trees,—that the sky is involved in thick clouds and all the trees of the earth seem to be covered *Márákatas* (emeralds) and most of the pearls seem to be changed to the color of sapphires.

20. The wishes of honest men tired with wandering for wealth in the forest of *Kalpa* trees, in the broken mountains, in mines of gems, and on the shores of oceans, are at last lying under the canopy of his cloud-like feet for rest, (i. e. he has fulfilled their wishes.)

21. He (the rája) who was like *RUDRA* in *Pralaya* (the end of a *Kalpa*) and born from the race named *Gandhapavana* and the first of those who were praised by the famous heroes, governed this earth. Whom when the contending rájas beheld when leading their expeditions for victory, they were struck with wonder and exclaimed, “What is this?” their whole thick army being at once put into confusion !

22. Even *SARASWATÍ* (the goddess of wisdom) having lived in his mouth gained the title *Padmálaya* (whose dwelling-place is the lily) which *LAKSHMÍ* enjoys in three worlds.

23. The wives of the interior of the rája who were always seeing his beauty, when he played with them on the top of the lofty cloud-reaching palace and cast his eye on the damsels, shrunk under it, yet still courted it, coquetting in gesture and motion through evident desire.

24. By him who was like *INDRA* on earth were granted to the brahmanas many famous villages with high buildings ; which (villages) contained many fruitful and smooth fields and were pleasant with the sound of the geese that were sporting in the sands of the rivers near, and the rice of which became the best of its kind when boiled.

The victorious and honorable emperor *KES'AVA SENA DEVA*, who was possessed of fame, the king of the three sorts of rájas, namely, *Aswapatí*, *Gajapatí* and *Narapatí*, like the sun in expanding the lily-like *Sena* caste, the lamp of the lunar line, famous as *KARNA* in gifts, veracious as *GA'NGEYA* (the son of *GANGA'*, or *BHÍ'SHMA*) a cage hard as *Bajra* to the refugees, the most rich, learned, the great hero, the king of kings, the destroyer of his enemies, and entitled *Sankara Gaureswara*, who was a dutiful son of *LAKSMANA SENA* entitled also *Sankara Gaureswara* ; who (*LAKSMANA SENA*) achieved his own fame, suppressor of his enemies and al-

ways meditating on the footsteps* of his father BALLA'LA SENA ; who (BALLA'LA SENA) was also titled *Sankara Gaureswara* and possessed of fame, subduer of enemies, and who meditated on the footsteps of his father VIJAYA SENA ; who (VIJAYA SENA) was also possessed of self-earned fame, for his putting down (securing) the load of victory from his shoulder which he gained by conquering all this *Jambú Grāma* (India), and who was the destroyer of his foes, and entitled *Sankara Gaureswara*,—now duly intimates, informs, and commands to the rājas and rājanyas (the caste of Khetriyas) that were present with him, and the queens and their children, the princes, the royal ministers, the priests, the judges, those who were experienced in war and peace, the chief commanders, wrestlers, the peons who apprehend robbers, naval officers, masters of elephants, cows, goats and woollen cloths, keepers of gardens, the executioners, the magistrates, the moralists, peons, those who were supported from his kingdom, superintendents over his dominions with their chiefs, men that belong to the tribe called *Chanda Bhanda*, and their chiefs, and many other rulers—to this effect :

Be it known to all of you that this great rāja, on his birthday to prolong his life has consecrated with water and presented to the brahmana, named ISWARA DEVA SARMA, with a copperplate *s'āsanam* on which an image of *Saddas'iva* is riveted, who (the brahmana) was the descendant of *Vatsa muni*, of five *Pravaras*† ; namely, *Bhārgavo*, *Chyāvana*, *Apnūvat*, *Aurva*, and *Jāmadagna* ; the reader of the holy texts, (*Srutī*) and the son of BANAMA'LI' SARMA the descendant of VATSA, of the above five *Pravaras*, the grandson of GARBHESWARA DEVA the descendant of VATSA, of the above five *Pravaras*, and the great-grandson of PARA'S'ARA DEVA SARMA, the descendant of VATSA of the same *Pravaras*,—the land of the villages *Bāgūli*, *Bettogātālodyamīna*, which is encompassed with these famous boundaries ; on the east by *Pranagūnatāna Gharhāghātaka*, near *Vikramapura* in *Banga*, which is in *Paundraka*‡, as *bhakti* (or as a jageer) ; on the south by the village named *Sattrakādhi*, on the west by *Sānkara* (?) *Govinda*, which looks high with jangals, and on the north by the village *Panchaka Pagado* ; for the peaceful enjoyment of his sons and grandsons, &c. &c. as long as the moon, the sun, and the earth shall endure. Which (village) is perpetually inheritable, well-governed, and not to be claimed by any of his relatives (such as an elder brother, &c.) and which contains houses on the margin of pure tanks, holes, saline soils, both the land and water, all sorts of shrubs, the trees of betelnuts and cocoanuts, and the tribe called *Chanda Bhanda*, and in which (ere he has consecrated it) he caused the ponds to be made, and the nut and cocoanut trees to be planted. Besides he has given him the power of punishing the *Chanda Bandas*.

* पदानुष्ठान reflecting on his feet, or the hereditary successor of.—Ed.

† The disciples of the MUNI from whose progeny were the brahmins descended.

‡ *Paundra* is the country extending from *Rangpur* across the Ganges to the *Jangalmehals*, including most of Bengal. *Wils. Dict.*—Ed.



“ In this copper sásanam are written 300 (perhaps bigás.)

“ Therefore you must allow him to enjoy the same ; as also shall the future rájas maintain it, with consideration that deprivation will doom them to hell, and maintaining will do glory to their virtue.

Some religious Slokas are written on this subject.

“ When any body gives land, his ancestors praise and boast themselves, saying that a land-giver is born in our race, and he will be the deliverer of us. He that presents lands and he that receives it, both of them are worthy of going to heaven.

Again : “ this earth though enjoyed by several kings as *Sagar rája*, &c. &c. yet whenever any one possess it he is the sole enjoyer of its produce.

“ He that deprives the land given by him or by any other person will rot in ordure, being born insects in it with his forefathers.

“ He who presents land lives 60,000 years in heaven, but he who abuses or disregards it is doomed to hell for the same period.

“ The effects of giving other things are to be enjoyed for one life*.

“ Men, considering human life and prosperity as fickle as the water on the leaf of the lily, and understanding what is already said, should not destroy the fame of others.

“ This *sásanam* of the (prince) whose feet are kissed by a hundred ministers : (signed on his part by)

“ His Majesty's almoners the high in authority, *Sriman MADYASA KARANANI* ; *Srimahá MADANAKA KARANANI* ; *Srimat KARANANI*.

“ In the year (of reign) 3 ; the month *Jyaishta* on the day—”(the rest obliterated.

4. *Inscriptions on Jain images from Central India.*

In the course of the year 1836, a number (nine or ten) of Jain images of marble were exhumated at *Ajmír*, from what is now a Musalmán burial-ground, and in the immediate neighbourhood of an old Jain temple beyond the *Durgáh* of the *Khawaja Sáhib* on the ascent to *Tárágarh*. Lieut. E. MADDEN, in obligingly communicating the above intelligence, furnished me with a copy of the line of writing inscribed on the base of three of the images, in hopes it might afford some historical aid, however limited, to our store of dates and names. One of these inscriptions I have inserted at the foot of Plate II. Omitting the drawing of the naked Jain saint kindly made by Lieut. OLDFIELD, because it differs in nothing from the ordinary images of the *Digambarí* class, so frequently represented ; they are seated cross-legged with their hands joined ; their ears are long and split, and their hair in the small round knobs or curls which have led many to give these images an African origin.

* In this half sloka, a few words are wanting to complete the verse, the meaning of which should be “ but the effects of presenting land are enjoyable for endless lives.”

The following version of several of the inscriptions was attempted by Lieut. MADDEN's pandit at Ajmír. The first being intended for that represented in the plate.

- १ संवत् १२३६ फा सुदी ४ सुक्रे साधुलाहड पतनी तोलीत धासेडी बज्जबिल बितसी लघभसी महासीमलिनाथप्रतिमाकारपिताः ।
- २ संवत् १२४३ वैसाख सुदी १५ श्रीमूल संयेदेव श्रीवासपूज्यः प्रतिमा साधुहालण सुतवर्द्धमान तथा यांत देवतथा साधुपुत्रमादिपाल देवप्रतिमा प्रतिष्ठापितमिती ।
- ३ संवत् १२३४ जेठसुद १३ बुधदिने साधुबुद्धा पुत्रवान हालू श्रीपार्श्वनाम देवपाल प्रणमतिमिहा ।
- ४ संवत् १२४७ वैसाख सुद १५ श्रीमूलसंयेसाधु बज्जमानपत्नी आस्त कर्म्मक्षयार्थे प्रतिष्ठापित श्रीपार्श्वनाथ प्रतिमा पुत्रमहीपालदेव ।
- ५ संवत् १२३६ फा वदि ४ सुक्रे आचार्यमाणिक्य देवसिष्यसोमदेव अर्जिकामदन श्रीसर्वगोष्ठिका प्रणमति ।
- ६ संवत् ११६५ आगणसुदि ३ आचार्य गदानंदीकृते पंडितगुणचन्द्रेण शांतिनाम प्रतिमाकारिता ।

कुव मूर्त्तीका तो आंक्य बंच्या सो लिथ्या अर तीन मूर्त्तीं पर तो आंक हैन्हीं अर दोयका आंक बिलकुल पढागयान्हीं ।

Whatever may be the correctness of the rest, the plate specimen certainly does not accord with the pandit's version as to the name of the image, which is clearly *Prajitanāth*, one of the 24 Jain saints : another is as evidently *Mallinātha pratimā karapitā* 'the image of MALLINĀTHA was caused to be made,'—and doubtless the whole would be found in any list of the Jain *Tirthankaras* (see Useful Tables 87). *Pārswanatha*, *Varddhamāna*, *Vāsupādya*, and *Chandraprabhā* of this list are found in the present inscriptions. The inscriptions are couched in the Prākṛit dialect, and their chief merit is in being specimens of the Jain character of the 12th century. I read the line in the Plate thus :

Sam. 1239 Pha. sudi 4, Sukrè ; sadhuvāha-achāryyamadana Srī Putra paṇḍu (?) lāhaḍena, Prajitanātha pratimā karāpitā."

VI.—*Extracts from the Journal of Lieut. MARKHAM KITTOE, submitted to the Asiatic Society at the meeting of the 6th Oct. 1836.—Ruins and Pillar at Jájipur.*

Sunday the 27th Nov.—Halt to-day.

Having made previous arrangements for a visit to *Jájipur*, I started at 4 A. M. in company with about a hundred men of the corps proceeding to pay their devotions at the famous *tírath* or *khetr* resting (as the Hindus assert) on the navel of the great *Gaya Asura*. At this place all good Hindus make offerings to their deceased relatives termed "*pinda pharna*:" a notice of the ceremonies attending which is to be found in STIRLING'S account of *Orissa*. I had no leisure to make many inquiries or to visit every object worthy of notice, yet I still saw a great deal which duly repaid me for my long ride of six miles there and six back again with a burning sun over my head.

The first place I visited was the mosque in the outskirts of the town, where there formerly stood the palace of the Súbehdars of the province MUHAMMAD TAKÍ KHA'N, ABU NASAR KHA'N and others. The mosque is rather a pretty object but of rough workmanship.

Over the centre archway is an inscription of five verses placed in five "howducs" or compartments in the style of the reign in which the mosque was built, the verses run thus:

ظل ظلیل رایت اورنگ زیب شاه اوصاف خلق ورتبه نواب مستطاب
گسترده باد تاکه زانجم نشان بود بیش از توان و قدرت نطق و بیان بود
در شهر جاجپور بنا کرد مسجدی
کین نهه نلک بگنبد سقفش نهان بود
تعبیه قدسیان شنوی اندرو اگر مسجد چو شد زمان ابونصرخان بنا
یکشب ترامقام دین آستان بود تاریخ او زمان ابونصرخان بود

The English of which is nearly as follows:

1

" May the Shadow of the insignia of the Emperor AURANGZEB
Be spread as long as the stars cast their light (shine.)

2

The praises and good qualities of the excellent Nawáb
Are greater than in the power of the poet to describe.

3

In the town of *Jájipur* he laid the foundations of a mosque
Beneath the domes of which the nine heavens are hidden.

4

Oh would you hear the angels recite the prayers
You must pass one night therein.

5

As the mosque was made in the time of A'BU NASSAR KHA'N
So its date is "the time of the Nawáb A'BU NASSAR KHA'N."

The year of the Hegira 1093 A. D. 1686.

By this inscription it would appear that the mosque was built in A. D. 1686 by the Nawáb ABU NASSAR KHA'N and not MUHAMMAD TAKI' KHÁN as stated by Mr. STIRLING.

At a short distance from the mosque is a dargáh or shrine of a Mussulman saint who destroyed a famous temple and converted the terrace, on which it stood, into an open mosque and burial-place for himself and family. Beneath the terrace are three idols of enormous dimensions and exquisite sculpture, representing Indráni, Varáha and Káli: the latter figure is the most worthy of notice though a more hideous object could not well be imagined,—it resembles (as it were) a living skeleton of an old fury. Mr. STIRLING gives a good account of these fine specimens of ancient Hindu sculpture; it is much to be regretted that these idols have so suffered from the mason's chisel, in late years employed by an European officer to detach "relics!" A part of the *mund-mála* of Káli and a hand of Indráni have been thus lost. It is also a great pity that these curiosities are not removed to the museum in Calcutta (which could easily be done in the rainy season) and thereby placed out of the reach of such would-be-antiquarian relic hunters.

The following are the dimensions of the figures.

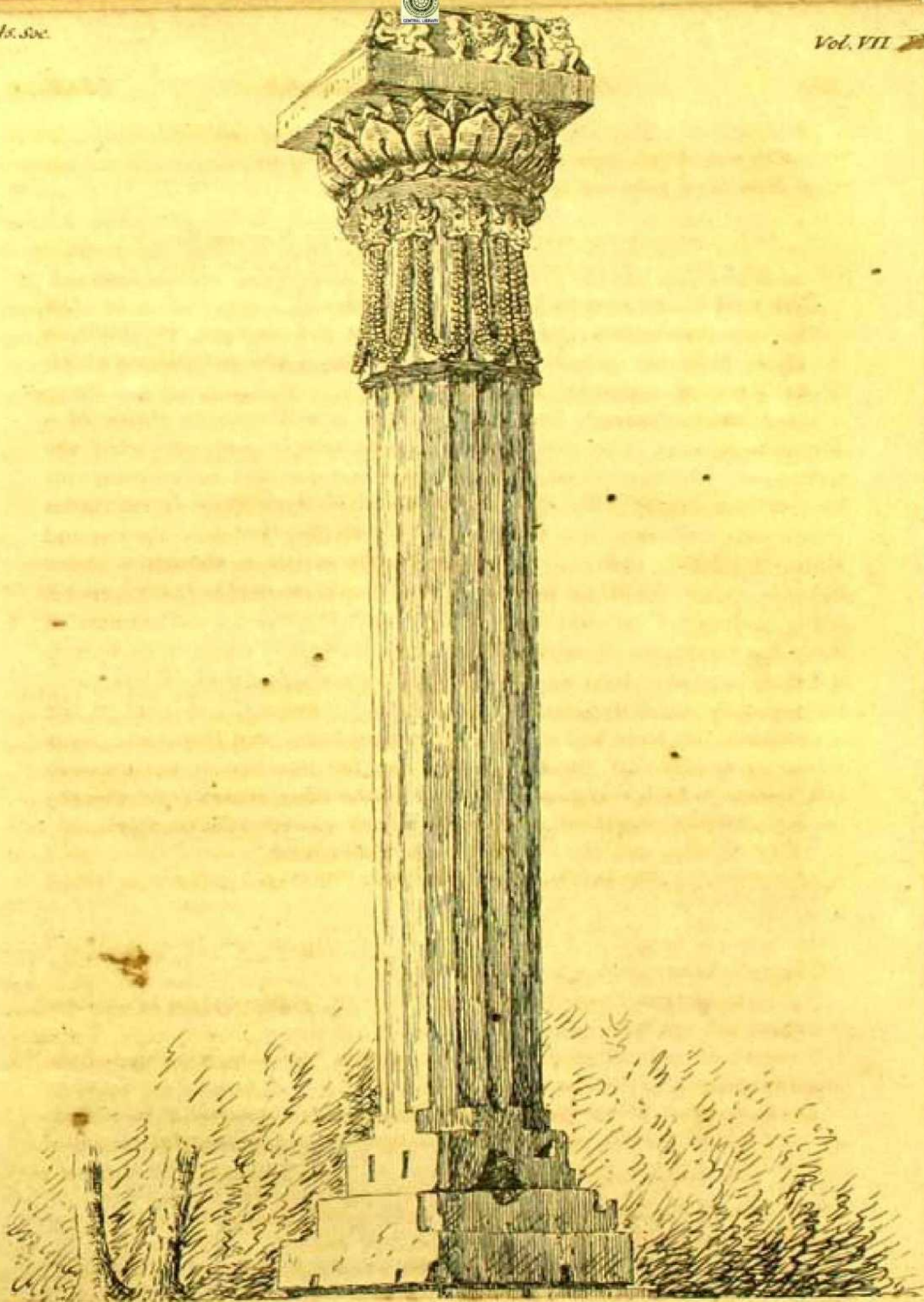
KA'LI', base 6 feet $0\frac{1}{2}$ inch; height 9 feet; thickness at the base 1 foot 4 inches.

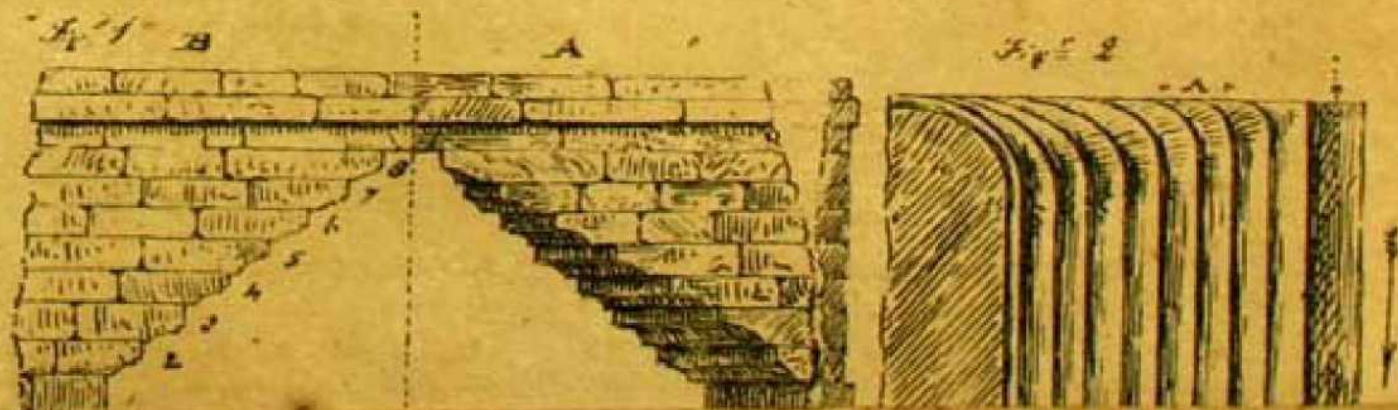
INDRA'NI', height 8 feet 10 inches; breadth at the base 5 feet 9 inches; thickness ditto 3 feet $1\frac{1}{2}$ inches.

VARÁHA, height 9 feet 10 inches; breadth at the base 5 feet 11 inches; thickness ditto 3 feet $6\frac{1}{2}$ inches.

I regretted my inability (for want of time) to make drawings of the three figures.

Having through the attention and exceeding politeness of the Mansif ABDUL AHID (who resides near the mosque) procured guides to shew me all that is to be seen in and near *Jajipur*, I visited the different temples, none of which are worthy of notice or at all ancient, though they occupy the places of those destroyed by the Muhammadan conquerors. About a mile and a half from the mosque behind the town, I was shewn a very elegant pillar of which the accompanying is a sketch; it is





of black chlorite and highly polished. I could obtain no information worthy of credit regarding it; it is called *Sivastambha* and is 35 feet high; the shaft is 19 feet 8 inches, the base 6 feet, consequently the capital is 9-4, consisting of three separate blocks which have been shaken out of their original position: indeed I doubt their originality.

The column is a polygon of 16 sides slightly concave. It would be useless conjecturing the origin of this elegant column, or even the former locality of it; it certainly was not always in its present situation but has been fixed in some building, perhaps a terrace, now no longer in existence.

Want of time again prevented my visiting a curious place said to be on a hill 3 miles off, but, God willing, I shall pay a special visit to *Jājipur* at some future period, where I shall devote a few days to hunting out and remarking upon all its now unknown curiosities.

I remarked a number of Jain and Buddhist figures in different places scattered about.

I omitted to state that an assertion of the villagers that a fine figure of *Garuda* was formerly at the top of the pillar and had flown away and alighted a mile off when KA'LA'PA'HA'R came to commit his ravages at *Jājipur*; since which it had remained there and had had a small temple erected over it. Curiosity led me to the spot: I was shewn within a small temple an elegantly executed figure of *Garuda* of black chlorite, a sketch of which I annex; it rests on a shaft (sunk in the ground) exactly similar in dimensions to the *Sivastambha* and may probably have belonged to it.

In the suburbs I remarked an ancient bridge similar to that over the *Kanse-banse** but nearly buried in the earth, the accumulation of ages. A river called *Mudagīr*, used in former times to flow through it, but of which there is scarcely a visible sign left; the bridge is of itself very ancient and constructed of materials taken from buildings of more remote date still. Figure (1) is an elevation of one of the arches† which struck me as very peculiar: it will be observed that there is a regular keystone in lieu of the more common block architrave. Figure (2) shews the manner in which the stones project and are finished off on the starlings, that is, on the face towards the stream.

The huts and houses in the town (which is very straggling) are remarkably neat and are all on stone terraces‡ raised to the height of 4 and 5 feet, a very necessary precaution in a place subject to inundations as this is; the country is a very few feet higher than the bed of the

* This is the place alluded to in the *Udayagiri* inscription, see last No.—ED.

† A represents the face towards the stream, and B the opposite side. The actual form of the arch is not altered by this arrangement.

‡ Hewn stones from the different ruins.

Baitarani. There are numerous tanks and swamps which together with the forest of cocoanut and other trees as well as bamboos must render it very unhealthy.

The brahmans are more troublesome here than in any place I have ever yet visited; they complained loudly of their loss since the high road through *Akua Padda* had been established, which deterred pilgrims from visiting their *khetr**. I must now take leave of *Jájipur* and conclude with stating that I returned to camp late in the evening much fatigued, having been in motion alternately on foot and on horse-back for the space of fourteen hours; but I considered myself amply repaid for my trouble.

VII.—*Remarks on "a Comparison of Indo-Chinese Languages, &c.*
By the Rev. W. MORTON.

The paper which appeared, under the above title, in the last, or December No. of the Journal of the Asiatic Society, was no doubt perused with much interest by many of the readers of that periodical. The importance of such a comparison, as was therein partially instituted, of the very numerous languages or dialects spoken both within and beyond the Ganges, is, in every point of view, very considerable. Whether we aim at ameliorating the civil institutions of the various tribes among whom they are the media of intercourse, or to communicate to them the arts and sciences and purer religion of the west, and to elevate them above the debasing influence of cruel, impure and abominable superstitions; or whether we seek merely to obtain an accurate as well as extensive acquaintance with these various dialects—in all points of view such investigations, as those in question, are most important; and the present efforts to obtain information of a philological nature by the Sadiyá missionaries, directed to these ends are consequently highly laudable.

I. Of their execution of the task undertaken I can say but little, and that little must almost be confined to the language of our own Province of Bengal. Of course the excellent individual who furnished the "Comparison," will take my observations in good part, as my design is simply, and in good faith, to throw in my mite of aid to him in his useful investigations, as well as to draw the attention of others to the subject.

1. In the "Comparison of the Bengáli and Asámese," it is stated that "above six-tenths of the most common words are identical, except with slight variations of pronunciation." Now I have carefully examined the list of words from which this conclusion is drawn, and find that upwards of eight-tenths would be the more correct statement; and that, of the 60 words, 50 are identical in Bengáli and Asámese. For, the most has not been made of the analogy between the two languages, by the introduction,

* The highway to *Cuttack* lay through *Jájipur* before the new road was made.

into the Bengáli column, of such secondary forms in current use as come far nearer, in many cases, to the Assamese terms, than those given in the "Comparison." Thus *báyu* is compared with *botáh*, while *bát*, equally a Bengáli form, is omitted. So, with *asthi* a bone, should have been given *hár*; with *karna*, *kán*; with *hasti*, *hát*; with *pitá*, *báp*; with *matsya*, *máchh*; for *pushpa*, *phul*; for *mastak*, *mur*; with *shringa*, *shing*; with *bánar*, *bandar*; with *chandra*, *chánd*; for *jananí*, *má*; with *rátri*, *rát*; with *tail*, *tel*; for *prastar*, *shildá*; with *danta*, *dánt*; with *grám*, *gán*; all identical, or very nearly so, with the Assamese of the table.

In the same use of secondary forms, the results of comparison with some of the other columns also would be slightly varied; as the Bengáli *go*, a cow, would much more nearly resemble the Khamti *ngó* and Siamese *ngóá*, than *garu* (the only form given) from which the Assamese *górú* is drawn. Thus too, were *tej* and *lauha* given in the Bengáli column, for blood—with the former, signifying *vigour*, the principle of vigour (and so applied to the brain, marrow, bile, semen, &c.) would agree the Assamese *tez*, the Jili *tashai*, the Koreng *tazyai*, &c. while the latter would appear to have originated the Khamti *leüt* and Siamese *lüat*; whereas *rakta* shews no agreement with either. The Assamese *poruá*, an ant, might shew a resemblance to the Bengáli *pinpará*, though none with *pipiliká*, &c. These and others we shall reduce to a table as follows.

English.	Bengáli.	Assamese.	
Air	bát	botáh	
Ant	pinpará	poruá	
Arrow	shar	—	Cor. sar
Blood	tej, lauha	tez,	Kha. leüt, Si. lüat, *Ji. tashai, Kor. tazyai.
Boat	nau, dingí	nau,	Ana. ding
Bone	háp	hár	Man. sarú, Song. karau, Ch. sorú, C. T. urú, S. T. arú, Lu. arú, N. T. arúkáu
Cat	márjár	—	
and myáo, a cat's mewling, whence myáokári, the mower		mekúri	Kh. miá, Si. meau, Gar. menggó, Song. and Kor. myauná, An. meýü
Cow	go	—	Kh. ngó, Si. ngóá
Dog	shwá	—	Bar. khwé, Sing. kwi, M. hwi, Song. shi, Kap. &c., wí. An. shó
Ear	káp	kán	Ji. and Kap. kana, Koren. kon. Ch. khunú, Lu. khaná
Elephant	dantí	—	Má. dátón
Father	báp, bápu, bábbá, bupai,	—	Ák. ábba, Ábor. bábu, Maring, pápá, &c.
Fire	poran (to burn)	—	Co. pár
Fish	máchh	mas	
Flower	phul	phúl	
Foot	pá	—	Mar. Lu. and Song. phai, Ch. aphaí
Hair	lom	—	Anam. long
Hand	páui	—	Song. bán, Mar. ván, Ch. apáu, Lu. páng
Head	mur	múr,	Co. mari
Horn	shing	hing,	Ák. kung, An. sùng
Leaf	parua, páu	—	Koreng. panú
Moon	cháud	jun,	Si. dūan
Mother	má	—	Kh. An. and Si. me, Bar. amé, Kar. mo, Garo amá, M. imá, Co. omi
	ái (mat : grand- ai mother)	—	
Mountain	adri	—	Ábor. adi



Salt	lun	lun	
Sky	swargā (heaven)	——	Garō, srigí
Stone	shilā	hil,	Kh. hin, Sī. hin
Sun	tapan		Sī. tawan
	dahan (burning)		Ak. dahani
Tiger,	sing, (properly a lion,)		Kh. seū, Sī. sūa, Lu. sangkhā, N. T. sakhwii, C. T. sakwi, &c.
Village	gān	gaun	

The writer will no doubt be glad to obtain the Bengáli forms above given.

2. The seven *cases* stated to belong to Assamese Nouns, are the same in number and order with those of Bengáli nouns: and it is by no means (as asserted in the "Comparison, &c.") a *peculiarity* in Assamese that "two pronouns are used for the 2nd person, according as the person addressed is superior or inferior to the speaker." The same obtains in Bengáli also, and is extended to the 3rd person likewise, with a similar terminational change in the verb. Thus —

1st pers :	ámi	mári	Plural	ámrá	mári
2nd inferior	tui	máris		torá	máris
2nd superior	tumi	mára		tomrá	mára
3rd inferior	se	máre		táhára	máre
3rd superior	tini	máren		tánhára	máren.

3. The comparison of adjectives in Bengáli is effected by a similar process to that erroneously stated to be peculiar to the Assamese. Thus *táhá haite bara*, greater than that; *sakal haite bara*, greatest of all. All the other grammatical minutiae particularized, equally apply. Also what are termed in the "Comparison, &c." numeral affixes, are of ordinary use in Bengáli; so that the analogy of the two languages is much closer than supposed in the "Comparison."

II. The fact stated by Captain Gordon, of the various very minute portions of the population employing a variety of dialects often nearly unintelligible to their next neighbours, is most observable. And, the same multiplied diversity having existed among the numerous aboriginal tribes of South America, the inference is just, that dialects are most numerous in the infancy of nations and tribes: while, in proportion as, with the cessation of hereditary feuds and the extension of national intercourse, they become civilized and educated, they approximate also in the use of a common language. Hence it may be confidently expected that, as the blessings of knowledge and refinement, peace, commerce and true religion, are extended among these 27 nations, at present using so many vernacular media, the customs and languages of the smaller tribes will merge into those of the larger, and those of common origin again approach each other and ultimately coalesce. The philanthropist must ardently desire so happy a consummation; since no one thing, perhaps, so fatally impedes the progress of mankind as those endless subdivisions, of which these multiplied tongues are first a consequence and then a confirmation, ever exciting to jealousies and hostilities of most injurious operation.

It may therefore fairly be a question how far the intelligent missionaries at Sadiya and elsewhere, might be justified in endeavouring to anticipate in some measure the work of time. It will scarcely be disputed that a translation of the Scriptures, (unless in very minute portions) for such a tribe, for instance, as that of Champhung, speaking a dialect understood only by thirty or forty families, would be most preposterous. Much may, no doubt, be done to diminish these fractions of language, and the Babel confusion and difficulty they occasion, by the judicious efforts of our political Agents and Missionaries in the ultra-Gangetic and other regions. Much prudence will indeed be required to avoid exciting the hostility of national prejudices, and other impediments to universal improvement.

In many cases, however, little difficulty would be experienced in confining translations, &c. to a more general language, which would ultimately supersede the more confined colloquial idioms. Thus, it is stated that "the majority (of the Champhung families) can speak more or less of Manipuri, or the languages of their more immediate neighbours." Again that "dialects so nearly similar, as are those of the northern and central Tangkhuls, are generally intelligible to the adult male population on both sides; while the women and children, who rarely leave their homes, find much difficulty in making themselves (mutually) understood." In these and similar cases, the way is plain; to extend education in the common or nearly common language; then, as the want of intellectual and especially of religious supply is felt, it will be sought in the language of the printed books.

III. Intimately connected with this point is that of the *character* to be taught to a people having none of their own. It should seem good, as a general principle, to employ, in such instances, the one used by the dominant neighbouring nation, especially if the languages be of kindred origin; for in this case, that character will be the best adapted to the sounds of the cognate dialect, and may be expected generally to give it a fitter and more correct expression than would any foreign alphabet.

The words in the "Comparison, &c." are given in the *Roman* character, according to the modified system of Sir WILLIAM JONES, to which the term *Romanizing* system has been applied. The writer thinks "they furnish abundant evidence that the Roman character is adequate to express every sound of the human voice, and is well fitted to be the written representative of all languages."

There is a fallacy here, into which most of the thorough-going advocates of the Romanizing system have been betrayed; it is that the modifications applied, according to that system, to the Roman alphabet, are not equally applicable to almost any other alphabet. Now, it is an obvious fact that the Roman letters are, as applied to eastern languages, both redundant and deficient. First, there are no letters corresponding to the ten *aspirated* consonants अ, ए, &c.; to the sibilants श and ष; to the liquids र and ल; to the nasals ङ, ण, म; to the long vowels इ, ई, &c. Again, the letters c, f, q,

v, w, x, z, are redundant ; while the two dentals, d and t, must denote, by the aid of the aspirate and a diacritical point, no fewer than eight sounds of that class ! But, while this double defect, of redundancy and insufficiency, opposes the application of the Roman alphabet to the expression of the sounds of the Hindustāni, Assamese, and many other languages in question, the Nāgari and its derivatives are not only complete without excess, but are positively also the most perfect alphabets in the world, the most philosophically conceived and arranged. The only exceptions that can be shewn are, that in the *derivatives* of the Sanskrit, the sound of *v* has been generally merged into *b* or *w*, which occasions a seeming redundancy of *one* letter ; (yet but seeming, because the *form* is also but *one** ;) and that two of the three sibilants are usually confounded in utterance, because of the tenuity of the distinction in their sounds, or rather origin. But if the *abuse* of even a perfect alphabet, one exactly commensurate with the primitive sounds of the language for which it was devised, be a matter of fact, surely that fact is rather an argument *against* the adoption of a very *imperfect* one, as so much *more* liable to originate far greater abuses. To a certain extent, *few* living languages, if any, have ever been exempt from these irregularities ; but all that *can*, it should seem, be done to prevent or remedy them, *is* done when the sounds are, technically, *fixed* sounds ; and, above all, when the written expression of them is exactly commensurate with them when so fixed ; and when, if a *few* irregularities have become obstinate in the usage of any people, *they* also are assigned their fixed limits and fixed expression likewise, as in the use of a diacritical point under the dentals ढ and ढ to mark a provincial utterance not original to the language. Now, as to this last expedient, it should appear to be the only available resource for denoting to the eye the variations from the first sounds of those letters, other than the invention of additional ones not primitive and original to the language ; one necessary effect of which course, would have been the confounding of the etymologies of words essentially the same.

But the fallacy alluded to above is involved in the assertion that “ the Roman character is adequate (as gathered from the tabular columns of ‘ the Comparison, &c.’) to express every sound of the human voice, and is well fitted to be the written representative of all languages.” This assertion involves a negation of such adequacy and fitness to all other characters. Let us see then with what justice. For how are the deficiency and redundancy in the Roman alphabet overcome, on the Romanizing system ? Why 1st, By entirely *discarding* those letters in it whose European sounds are not found in the Indian languages. 2ndly, By the use of *combination* and of *diacritical points*, to enable the Indian variety of sounds to be expressed by an inadequate number of letters having an original utterance *not* Indian. But who does not see that the same operation may be extended to any alphabetic characters whatever ? Of *any* such, we might with equal propriety and equal truth say, that “ it is adequate to express every sound of the human voice, &c.” The *more or less* is altogether, as we said, a

* i. e. in the *derivate* alphabets only ; the *original* forms were quite distinct.—ED.

subsequent and separate consideration. Let not any then be misled by the fallacious mystification of a plain question, in which the sanguine advocates of the Romanizing system have indulged and do yet indulge. It is of course, a subsequent question *what* alphabet may be made applicable to express the sounds of the Indian languages with the *fewest, simplest*, and most effective modifications; but the *primary* one, as to the *capability* of any set of characters to receive an arbitrary assignment to the office of representing any variety of sound whatever, is that which has been, in our judgment, so mischievously mystified. What, in fact, should prevent the process of omission and of diacritical distinction from being applied to any existing alphabet or to any newly invented symbols whatever?

We have, abstractedly considered, no objection to make to the adoption of the Roman alphabet for written communication among a people yet without one of their own. In such a case the only question with us would be one of expediency, to be determined by aptitude, facility, and many other special considerations. But we look upon the attempt to *substitute* the Roman letters for the long established characters, among a people acquainted with the use of written as well as spoken language, as both quixotic and preposterous; quixotic, because the attempt must fail of any considerable measure of success within the lapse of ages, except by measures too arbitrary and unjust to be contemplated by the most zealous advocate of the plan; and preposterous, for the following reasons chiefly—

Because there is a positive, though not to all at first manifest, danger of a progressive corruption of the sounds and confusion of the etymologies of the native languages, by applying to them any other than their own original alphabets. The results of the progress of independent nations, during a course of ages, must not be confounded with those that may be expected under the operation of a high state of mental advancement in a dominant people suddenly and at once imparting their own large knowledge to their conquered subjects. Therefore no conclusion against the present argument can be drawn from the gradual modifications of a nation's *own* alphabet, from age to age; nor from the ultimate disuse, among the European nations, of the German character for the Roman: because these two sets of symbols were substantially the same in *form*, essentially the same in *sound*. There is consequently no analogy between the gradual improvement of the European alphabets, in appearance and facility of writing, &c. and the now contemplated entire substitution of a foreign alphabet, altogether exotic both in sound and figure, for the native Indian characters. In the former case, there was no danger whatever to be apprehended of confounding letters of the same organ, to the annihilation of all clear traces of the etymologies of words of various origin, or of the gradual corruption of the phonic powers of the letters; in the latter there is the greatest. Thus *tat*, that, and *taṭ* a shore, differ, in *Roman* character, but by the diacritical point under the final *t* of the latter word. Now all who are versed in this subject well know the extreme difficulty, and often almost inextricable confusion, occasioned by errors and omissions in diacritical marks, in the writing

of languages to which they are *original*; and if this be the consequence of such a system to them to whom such languages are vernacular, how much more extensively is its experience to be apprehended by those who come, as foreigners, to the study of languages whose system of alphabetic sounds is so widely different as are those of India from those of Europe? Europeans as it is, with all the check upon a vicious pronunciation secured by the *distinct* forms of the native characters, too often fail in acquiring their proper sounds, and in consequence are but too extensively unintelligible in their vocal communications. How often has this been felt and complained of in civil functionaries and, where it is most injurious in its results, in Missionaries of the blessed Gospel! The writer has known numerous cases in which the greatest zeal, and even large positive attainments, have been greatly neutralised by a confused, inaccurate and indistinct pronunciation. The adult organs have, in fact, acquired a *set*, so to speak, which does not readily admit of the enunciation of sounds various from those acquired in childhood. Indeed, not only a facility of accommodating the organs of pronunciation to new positions, &c. but a fine and accurate ear too, is necessary, in the first instance, to *distinguish* the minuter variations of sound among letters of the same class: some, entirely new, are seldom perhaps thoroughly acquired by the best scholars. Now it is manifest that this difficulty, and the concomitant danger of confounding the most important differences in letters and words, would be immeasurably increased were the helps and guards of the native characters removed and our *own*, however systematized, introduced.

Nor would the evil be confined to foreigners. For, besides that increasing intercourse with these would naturally and even necessarily tend, of itself, to *familiarize* the natives to much vocal and written corruption of their languages, were *they* also to adopt the Romanizing system, they would themselves be in no small danger of extending that corruption. Thus the words তাত *that*, and তে *a shore*, in distinct native characters cannot be mistaken; but their equivalents in Roman letters, *tat* and *tat* differ only in a point. How easily might the omission alone of that point create confusion and obscurity! But this is not all; for as, in English, the letter *t* has never the sound of ত but of ত only, in learning that language a native of India has first to encounter the difficulty of altogether discarding, wherever he meets the letter *t*, the dental sound of ত, (immeasurably more frequent in his own language than that of ত which is the *English t*), and is then incessantly exposed to the hazard of corrupting the sound either of the English *t* or of his native letter ত, and of settling down into a slovenly uniformity of dental enunciation in one or in both languages, to the ultimate confusion of words essentially different; thus, at once, destroying the etymologies and obscuring the sense of the words he employs. So of the vowels also; *mon*, in English, he must pronounce nearly as মন in Bengali; in reading his own tongue *Romanized*, he must pronounce the same combination as মন, of which it is the equivalent. It is replied, I know, that Europeans of all nations experience no such difficulty, and are exposed to no such

hazard of a mispronunciation of the *same* letters applied in different combinations to varying utterances. But, be it remembered, that the European has acquired his vernacular alphabetic sounds in infancy and without effort; by effort must he learn, in after life, to give other sounds, say the French, &c. to the same letters. There is *no* danger whatever of his corrupting those proper to his native tongue. There is to him only the difficulty of fully acquiring and correctly applying the acquired foreign enunciation. But to a native of India, the Roman alphabet is originally unknown, as the expression of any system of sounds. He has therefore to encounter the prodigious difficulty of applying *foreign* letters on *two* distinct vocal arrangements; first to his own tongue, to which it is inadequate, and then to a European one. Nor, let this difficulty be thought exaggerated. For in eastern languages *vowels* at least are strictly *invariable*; the same letter expressing ever but one sound; and, with very slight exceptions, this is equally true of the consonants: *but*, in English, and *but* in Bengali, are severally, an adversative conjunction and a noun meaning a species of corn; and the same vowel *u* is equivalent to the native *ঊ* and *ঋ* both, vowels never confusable or interchangeable!

To all which must be added the conclusive consideration, that were the Romanizing innovation, by any chance, to succeed in throwing out of use the *native* character among European students of the native languages, and among any considerable number of the youth of the country now educating in our Schools and Colleges, one of the most singular and fatal consequences of such an unparalleled anomaly in educational philosophy, would be the setting aside, at one fell swoop, of the whole indigenous literature of the land, the entire writings of its purest and most valuable original authors, and the reduction of the *native* library of the rising literati and the European student, to a few miserable volumes of *Romanized* exotics, a Primer or two, the Pilgrim's Progress, and one or more similar specimens of a foreign idiom in a foreign dress! How monstrous a consummation!

I might indefinitely enlarge, but must yield to the restraint imposed by the limits to which the small space afforded in a periodical confines me. Enough has been stated I should hope to shew—

1st. That it is a manifest *fallacy* to represent the Roman alphabet, as modified in the Romanizing system, as a fitter expression than any other alphabet, under the same plan of modification, of the sounds of eastern or of any other languages.

2nd. That the attempt, futile as it really is, to substitute the Roman for the native alphabets, were it actually to succeed, must be pregnant with the most mischievous results to the philology of the native languages; both as to the etymological distinctness of words, (on which the clear perception of their sense and the perspicuity or obscurity of construction so much depend) and as to the purity of native pronunciation.

I will only in conclusion observe, that, as applied to the *expression* in *European* books, and for the information of *Europeans*, of native words and

sentential quotations, the Romanized system, originally fixed by that eminent scholar Sir W. JONES, and now but very slightly modified indeed, is immeasurably more accurate, complete and philosophical than any other that has been put forth by English Philologists. All who take an interest in oriental literature must heartily rejoice in the fresh impulse that has been latterly given to it; an impulse which bids fair, ultimately and at no distant period, to put out of use, for ever, those other, at once crude and tasteless, systems, equally unphilosophical to the mind and uninviting to the eye, which *have* been applied by some learned but injudicious scholars. This alone were result enough, amply to reward those active and philanthropic individuals who have stirred up the present question. Would they but rest here, they would be justly esteemed benefactors; beyond this their labours are either mischievous, or absurd, or both at once; of which, besides the philological arguments above given, may be adduced the fact, that while occupied with more than quixotic hopes, excitement, and confinement of view, in this vain attempt at more than an Herculean task, they are dividing the warmest friends of native education and general improvement: they do positively retard the period of the regeneration of India; a consummation that can only be brought about by *united* exertions; by "a long pull, a strong pull, and a pull altogether," of that chain of instrumental truth which is to pull down for ever the monstrous edifice of the superstitions of ages.

Note.—Did we not consider this question as long since set at rest, we might easily second our author with other arguments against the adaptability of the Roman alphabet to *take the place* of the oriental alphabets either of Arabia or India; although it is no doubt possible to contrive that it shall, by modifications and restrictions, represent any given number of sounds. The real *merit* of the European alphabet, for writing and for printing consists in its *fewness* of symbols:—multiply these by diacritical marks, and it is put on a par with Eastern alphabets in one source of perplexity, while it is behind them greatly in the distinction of letters *inter se*. Any one engaged in printing knows the exceeding difficulty of setting up and of sorting letters of the same name merely affected by a minute dot; and hardly a page of romanized *writing* can be produced in print properly accented. Sir W. JONES's system of romanization even with the TREVELYAN modifications, is still far from being perfect, however sufficient, as we have always maintained, for Europeans and *sentential quotations*. Some of the continental systems, as that of CHEZY, founded on the principle of representing single letters always by single letters, has a great advantage over it in the transcription of poetry in particular, where it seems unprosodial to give a short quantity to a vowel preceding such double letters as *bh, dh, chh*, while *mh, lh*, require a long one. The hard palatal is, we think, better represented by the *c* alone, that is, the Italian *c*; especially as both the hard and soft sound of this letter are discarded in the present romanized scale. What can look more uncouth than *achchhá* (by CHEZY *acc'á*) unless, indeed, it be the more ancient continental orthography *atchtchhá*, which is qualified to express nothing short of a typographed sneeze!—ED.



VIII.—*On the difference of level in Indian Coal fields, and the causes to which this may be ascribed.* By J. McCLELLAND Esq. Secretary to the Committee for investigating the Coal and Mineral resources of India.

[Extracted with permission from the Committee's Reports now under publication.]

Before proceeding to notice the information which has been published or reported to government regarding the various coal fields, it will be desirable to offer a few observations on the geological features of that portion of India in which they occur, more especially beyond the Ganges.

The face of the country rises gradually as we cross the plains on the western side of the *Hoogley* towards the range of hills, at the base of which the coal field of *Burdwan* is situated; this is proved by the following fact noticed by the late Mr. JONES, namely, that at *Omptah*, twenty-two miles due west of *Calcutta*, and the same distance from the sea as that city, the tides in the *Damuda* derived from the estuary of the *Hoogley* rise but ten inches during the springs of June, ebbing and flowing only half an hour*. In *Calcutta* on the other hand there is a difference of seventeen feet between high and low water during the same springs†, from which we may perhaps infer, that the plain in this direction ascends nine inches per mile for the distance of twenty-two miles from the *Hoogley*; beyond this, the surface is known to rise more rapidly throughout the extent of sixty or seventy miles to the foot of the hills, which is the cause of those violent floods that render the navigation of the *Damuda* so difficult‡.

* We should think the facts here noted prove rather the two places to be on the same level. As far as the tide reaches, the average of high and low water will be very nearly the level of the sea, unless there is a considerable flow of water from above, which is less the case in the *Damuda* than in the *Hoogley*. The lift depends on the body of water, depth, and configuration of the channel, and the *Damuda* only gets an offset from the *Hoogley* tidal supply. The height of the surface of the land may be safely measured from the average of high and low water mark. See a paper on this subject by Captain T. PRINSEP, Gl. Sci. Vol. II.—Ed.

† See KYD's Tables, Asiatic Res. 1829.

‡ Mr. JONES states that the *Damuda* river is open from the middle of June to the end of September for boats of 300 maunds burden, from *Omptah* to the situation at which the coal is raised, and that each boat is capable during this period of passing five times between these situations. It is necessary, when from a slight cessation of rain the river is perceived to fall, to haul the boat on the highest practicable ground, and there await the succeeding flood, which sets in with so much impetuosity as to overwhelm whatever may happen to be in its course.



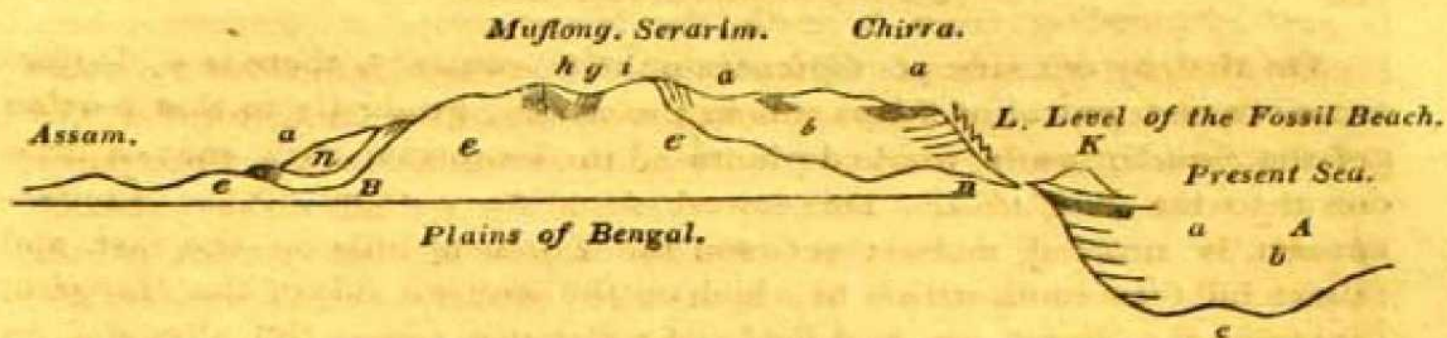
On the eastern side of *Calcutta* on the contrary, there is a depression, though probably of less amount, extending gradually to that portion of the *Sunderbunds* marked 'morass,' in ARROWSMITH'S map, a little on the west of *Culna*. This lowest situation perhaps of the *Sunderbunds*, is situated midway between the *Tiperah* hills on the east, and those hills the continuation of which on the western side of the *Hoogley*, contains the *Burdwan* coal field; the distance across the alluvium on either side being about 150 miles, making the breadth of the united delta of the *Ganges* and *Brahmaputra*, at this situation 300 miles.

If from the morass, we proceed two and a half degrees due north, we find the breadth of the great delta contracted between the *Garrow* and *Rajmahl* hills to 150 miles, from which situation the alluvium again expands into the plains of its respective rivers, extending north-west and north-east respectively, and leaving an obtuse angle formed by the *Sikkim* and *Bhotan* mountains, pointing toward the great delta, and forming with the *Rajmahl* and *Garrow* mountains three points of a nearly equilateral triangle, which constitutes the nearest local connexion of the three distinct systems of Indian mountains; and at each of the three situations, viz. *Rajmahl*, *Chilmary*, and the *Teesa* river coal has been found.

It would be hazardous to draw any conclusion from this interesting fact, until we are better acquainted with the nature and relative position of the strata in each locality. Should the coal of the three situations prove to be the same formation, borings in that case conducted in various intermediate points in *Purnea* and *Dinagepore*, might detect the coal measures buried beneath this portion of the delta; (vide a. A. Fig. 1) but at present our data are too vague to justify the expense of such a mode of inquiry in this quarter. It would rather seem that the intervening coal measures were upheaved with those of the adjacent mountains, and subsequently overthrown by the *Ganges* and *Brahmaputra*, or by other causes hereafter to be considered.

Although we have at *Chirra Punji*, a bed of coal raised on an insulated summit 4300 feet above the level of the sea, the rocks by which it is accompanied are identical in their nature with those that are found bearing a similar relative position to other beds of coal of the same formation, whether above or below the level of the sea. The annexed figure will render these observations better understood.

- a a a a a* Coal. *b b* Great sandstone forming the base of the coal measures.
e e e e Igneous rocks. *g* Basaltic quartzose rocks, reposing on the greenstone (*i.*)
i Greenstone. *h* Granular slaty quartz, or metamorphosed sandstone.
k Nummulite limestone. *m* Slate clay.
n New sandstone, containing in the south side of Assam fragments of coal and fossil trees.



The section of the *Káśya* mountains here represented is not ideal, although the horizontal distances are contracted for convenience.

With regard to the tertiary beach *L*, it is a settled point in such cases that it is the land and not the sea that has undergone an alteration of level. The difference between the fossil beach and the present sea, is consequently the quantity which these mountains have increased in height since the tertiary period, indicated by the character of the shells of which the fossil beach is constituted, thus accounting at once for the principal difference of level between the coal at *Chirra* and that of *Burdwan* on the opposite side of the delta. The bursting of a submarine volcano between the points *B*, *B*, from beneath a secondary basin *A*, composed of the coal measures, would necessarily if on a scale of sufficient magnitude uplift the intermediate portion of the latter, separating the strata *l*, *l*, *l*, *l*, which were continuous before the elevatory movements commenced. This will also account for the presence of coal at the base, as well as on the summit of the mountain at *Chirra**. The great mass of igneous rocks *e*, *e*, *e*, *e*, which appear to have been chiefly instrumental in effecting the upheavement of the coal measures, is sienite; but at *i*, situated on the southern side of the *Bogapany* river, greenstone

* The existence of a sub-marine basin of a depth which according to these views must have been equal to the entire height of the mountains, may appear to be incompatible with the depth to be assigned to the sea which would appear to have covered Bengal during the tertiary period. The existence of an unfathomable abyss called the swatch of no ground, close to the mouths of the Ganges, and surrounded by shoal water where the deposit of silt might be supposed rapidly to remove such a remarkable feature, leaves little difficulty in conceiving the great depth to which marine valleys may descend. The swatch is about 5 miles east of *Lacom's Channel*: it is fifty miles long, and thirty broad, and within a mile or two of sands which are left bare at low water; 130 fathoms of line have been tried without effect, and this, within so inconsiderable a distance from the northern side of the swatch, where soundings indicate only 7 fathoms, as to leave little doubt of this sub-marine valley presenting as precipitous declivities as we are in the habit of witnessing from the loftiest table-lands. For the soundings of this basin see *Horsburgh's Map of the Bay of Bengal*.

is seen protruding from beneath the lower strata of sandstone here represented by a coarse conglomerate of boulders, imbedded in some occasions in a matrix of felspar, as in the valley of the *Calapany**. The greenstone *i*, forms the whole declivity on the south side of the *Bogapany*, down to the bed of the torrent which is formed of a glassy basalt, apparently nothing more than altered masses of that portion of the sandstone formation which has been here entirely overthrown by the causes just adverted to†. Ascending from the torrent along the precipitous face of the mountain to *Muflong*, the metamorphosed rock gradually loses its columnar structure, and assumes the character of granular slaty quartz. In the vicinity of *Muflong*, this last form of rock, which may be traced by several gradations into ordinary sandstone, rests on sienite in highly inclined masses. Sienite forms some of the loftiest summits in this situation, but appears to pass, on declivities, into a rock formed chiefly of felspar in a fine granular crystalline state, with a little quartz‡; and enclosing granitic masses which undergo concentric decay, and occasionally beds of mica, and sometimes of quartz much comminuted. This constitutes the principal formation over which the road extends from *Mairang* into the valley of *Assam*. Somewhere on either side of the lower portion of this declivity, coal measures have been detected the same as on the *Bengal* face of the mountains, but accompanied with newer sandstones containing salt springs in addition to fossil trees and detached fragments of coal. Limestone, agreeing in mineral characters and probably in fossil contents with that of *Chirra*, also occurs in this side of the mountains; but the relative position of the beds, as well as all other important geological features here remain unexplored§.

* This is a small but precipitous river valley, met with in the table-land between the *Serarim* and the *Bogapany*.

† It is always satisfactory on such occasions to find the views of different observers agree in ever so limited a degree: I may therefore remark that Sir EDWARD RYAN and Mr. CRACROFT, who on distinct occasions crossed this portion of the *Kásya* mountains prior to the visit of the Assam deputation, also found rocks which they denominated basaltic. No 21 in Sir EDWARD's collection of specimens presented to the Asiatic Society's museum is named 'basaltic quartz' from the bed of the *Bogapany*; and is the same as the glassy basalt abovementioned. Mr. CRACROFT's collection of specimens from between *Muflong* and *Serarim* also contains a 'basalt' as well as 'a coarse quartz sandstone'—(Vide Journal of the Asiatic Soc. Vol. III. 296) which is the metamorphosed sandstone here spoken of.

‡ Described in my geological catalogue as primary sandstone.

§ Figs. 25, 20, 21, and 15, Plate 2, were found in a small quantity of the *Assam* limestone which had been brought to *Gowahatti* for the purpose of making lime: all these but 15 have been found in the *Chirra* limestone also.

The insulated situation of the coal measures at *Chirra Punji* affords an excellent opportunity for their examination, owing to the great extent of surface which is free from soil and alluvium, so that the geologist has no obstacle to encounter but the dense vegetation peculiar to the climate.

The great sandstone composing here as elsewhere the base of the coal measures, forms the lofty front of the mountains facing the plains. The lower beds consist of a coarse conglomerate, as already stated, represented at *i*, in the preceding section, resting on greenstone after the manner of similar conglomerates in nearly all countries in which their fundamental rocks have been observed*. When we consider that this is not merely the case with the sandstone of the *Kásya* mountains, but that the whole series of sandstones throughout Central India rest on the flanks of ranges of sienite, greenstone, and basalt, we cannot apply more appropriate language in elucidation of this general feature in our geology, extending as it does over an area of 1800 geographical miles in length, and 300 in breadth, than the following remarks of DE LA BECHE:—"As we can scarcely conceive such general and simultaneous movements in the interior strata immediately preceding the first deposit of the red sandstone series, that every point on which it reposes was convulsed and threw off fragments of rocks at the same moment; we should rather look to certain foci of disturbance for the dispersion of fragments, or the sudden elevation of lines of strata, sometimes perhaps producing ranges of mountains in accordance with the views of M. ELIE DE BEAUMONT." Had this idea resulted from observations in India, rather than in Europe, it could not have been more appropriate, or formed so as to convey a more accurate notion of the nature and connexions of our red conglomerates.

Ascending through the series of beds of this rock in the *Kásya* mountains, we find the coarser strata occasionally reappear, succeeded again by the normal beds which are fine, durable, and grey colored.

In some places, but especially when approaching the upper third of the series, the colors become variegated, and ultimately the whole, or nearly so, assume a brick red color. The higher strata form a barren table-land with lengthy sloping summits extending to the distance of ten miles towards the interior of the mountains.

* Speaking of the porphyry on which the red conglomerates of Devonshire rest, DE LA BECHE observes (Manual Geol. 388).—"When however we extend our observations, we find that our conglomerates are very characteristic of deposits of the same age in other parts of Britain, France, and Germany, and they most frequently though not always rest on disturbed strata."



The limestone and coal about to be described, repose in an elevated position on either side of the adjoining summits; whether the rocks of which these last are composed, occupy a superior geognostic position with regard to the coal or not, is somewhat doubtful; but as far as it is safe to determine from inquiries of a partial nature, we may consider the sandstone from the base of the mountains to the higher peaks along their flanks as an uninterrupted series of beds, and consequently, that the coal is a newer rock than the sandstone composing adjacent summits.

In the sandstone upon which the coal and limestone immediately rest at *Chirra*, a bed of boring shells, figs. 8, 9, 10, plate VII. occur composing a considerable portion of the rock in certain places. The shells were of the size and form of the *Teredo navalis*, but they are mineralized so unfavorably as to render it doubtful to what genus they really belonged*.

It is here worthy of remark that the old red sandstone at the base of the coal measures at *Caithness*, and other parts of Britain contains fishes, none of which appear in the superincumbent beds, while at *Chirra* we have a sandstone bearing the character of the old red, and like it reposing on igneous rocks, and supporting beds of limestone and coal; but instead of fishes abounding in the peculiar boring shells just mentioned, not one of which could be found in the superimposed rock, nor could one of the numerous shells of the latter be found in the subjacent rock, thus indicating both in Europe and India, that a sufficient

* In Dr. BUCKLAND's paper on the fossils procured in *Ava* by Mr. CRAWFORD, Geol. Trans. 2nd series, vol. II. p. 387, teredines are mentioned as having been found in blocks of wood in that kingdom and of the same species as those found in London clay. Mr. WISE of *Dacca* has recently found fossil trees in *Camilla*, that remarkable tract of table-land referred to in the first paragraph of the author's report on the physical condition of the *Assam* tea plant. (Transactions of the Agricultural Society of India, vol. IV. p. 1.) Two specimens of these trees have been brought to Calcutta by H. M. Low, Esq., one apparently calcareous, the other is siliceous, yet both were found together in the same place, so that it is to be supposed they were drifted from distinct situations. One of these fossils had been eaten by *termes* and the other perforated by a kind of *teredo*, the holes of which agree in every respect with those formed in recent trees in the *Sunderbunds* by the *teredo navalis*; the trees were dicotyledinous. If they were actually found on the table-land alluded to, the fact will lead to some highly interesting inferences, but whether or not, they serve to form an interesting local link between the fossils of the *Chirra Punji* sandstone, and the living teredo in the Bay of Bengal. Mr. Low has kindly undertaken to procure more information from Mr. WISE regarding the history of the fossil woods in question, which are in the meantime transferred to my friend Dr. CANTOR.

interval of time had elapsed between the period at which the formation of the conglomerates was finished, and that at which the production of the limestone commenced, to allow of the disappearance from the seas of one class of animals, and the introduction of another. The surface of this great formation for two-thirds of the entire height of the *Kásya* mountains in this situation, is covered with a stratum of marine shells which lie immediately under the soil, and in places these remains are accumulated in extensive deposits of the shingle of an ancient coast represented at *L*, in the preceding figure.

On the summits which intervene between the coal at *Chirra*, and that of *Serarim* above adverted to, the sandstone is chiefly of a brick red color, variegated in places with white. Imbedded in the structure of this rock, the fragment of a fruit or lomentum of a leguminous plant belonging to the tribe mimosea, was found*. This fossil, figs. 4, 5, 6, 7, plate I., like the remains of the teredinous animals already noticed, (though its form is better preserved) is converted into sandstone in no way different from the matrix, except that it was separated from it by a want of cohesion between the form and the impression. It is probable from this condition of the fossil that it may have lived at a time when the rock in which it was imbedded was forming, and been washed into waters and deposited with their sediment. Near it was found a thorny stem, fig. 3, plate I., such as the plant to which the fruit belonged most probably possessed, especially as the thorny species of mimoseæ, producing fruit of such a size, are the most numerous of the tribe. The mimoseæ form a very general feature of the vegetation of the plains, but are rarely if ever seen on mountain summits at such an elevation as the rock in which these fragments were found. The inference consequently tends to support the indications of upheavement afforded by the marine remains so extensively distributed over the acclivities of these mountains, as well as the doctrine of LYELL as to the influence of vicissitudes in physical geography, on the distribution and existence of species. It also leads us to infer, that one feature at least of the existing vegetation of India, has survived those revolutions which have obliterated the existence of tropical forms in the present temperate regions of the earth.

Reposing on the teredinite sandstone near *Chirra*, a detached accumulation of limestone with alternating beds of sandstone, coal, and shale, disposed in horizontal strata, form a precipice about a hundred feet high from the base. Coal, to a thickness of fifteen feet in places occupies a

* We are indebted to the botanical acquirements of my friend and fellow-traveller WILLIAM GRIFFITH, Esq. for a right knowledge of the nature of this fossil.



middle position in these strata. A bed of loose, coarse and sharp sand, five feet deep, forms the roof of the coal, and a layer of soft sandstone, about two feet in thickness, rests directly under the soil upon a bed of clay about twenty feet deep. The clay holds an intermediate position between the roof of the coal and the superincumbent sandstone; it is of yellow color, but dark in some places, and intersected horizontally with thin layers of gravel, coal, and an iron pyrites of little value, and in small quantity. From their softness these beds are easily, though not uniformly, acted upon by surface water, which peculiarity may have given rise to that waved appearance observed by Mr. JONES and Captain SAGE in the *Burdwan* and *Palamow* coal fields.

Following the section from the coal downwards, we meet with an earthy limestone, which, though naturally dark, becomes mealy and whitish on the surface by exposure: it is perhaps the magnesian limestone of the coal measures. This bed is about four feet in thickness, and contains nests of coal, with some traces of shells; a layer of sandstone an inch in thickness divides this from a bed of ordinary compact limestone twenty feet in thickness, containing few if any shells;—an interesting circumstance when compared with the fact of the absence of fossils in limestones of similar character in Central India: a more compact and crystalline bed than the last, abounding in those shells represented in plate 2, then occurs. This is separated from the great sandstone, by a fine calcareous grit stone eight feet in thickness, in which fig. 23, plate VIII. was the only fossil found.

Nummulite limestone (*k*, fig. 1) was first brought to light at the foot of the *Kásya* mountains by Mr. COLEBROOKE in his paper on Mr. SCOTT's notes and specimens, which were forwarded to the Geological Society in 1824* ; but the *Chirra Punji* bed of shell limestone here noticed was first observed in 1832 by Mr. CRACROFT†, Mr. SCOTT may have previously found occasional shells in the same rock in the *Kásya* as well as in the *Garrow* mountains‡. It does not however appear that any chronological distinction has been established between the different limestones in this quarter, although the *Chirra* rock is distinguished as a formation from the nummulite limestone, as well by means of its fossils, as by the beds with which it is associated.

The nummulite limestone of *Terriaghát*, where it composes that portion of the *Laour* hills situated at the base of the *Kásya* mountains, is a

* Geological Transactions, vol. I. 2nd series, 132.

† Journal of the Asiatic Society, vol. I. 252.

‡ Geological Transactions, vol. I. 2nd series, 132.



compact blue rock alternating in single strata with a coarse earthy oolite of a calcareous nature*. These appear to rest (as well as could be determined during a cursory examination while passing) on a slate clay composed of argillaceous blue clay with slaty layers of ferruginous matter and sandstone. The compact beds abound in nummulites, and in fragments of the same rock which had been quarried somewhere in this vicinity and conveyed to *Chattak* for the purpose of making lime, a *turbinolopsis ocracea* was found†. Now although we cannot as yet contend for the universal and contemporaneous distribution either of the same organic species or geological formations, yet as the chalk of Europe is represented in several extensive tracts of that continent by rocks which are very unlike, and especially in the *Morea*, by a compact nummulite limestone, and in the South of France by an oolite containing nummulites, there is no reason why, in the present state of our knowledge we should not refer our compact nummulite limestone, together with the oolite associated with it, to the cretaceous group. See LYELL, 4th ed. vol. IV. 287-8, where the observations of MM. BOBLAYE and VIRLET, are referred to in support of the equivalent distribution of chalk and nummulite limestone in Europe.

In the *Chirra Punji* coal no vegetable impressions have been found; but slight opportunities have been hitherto afforded of examining the adjoining shales in which they are chiefly to be expected. I found in the bed of coal at *Serarim*, however, which appears to be the same formation, a large phytolithus, or stem, characteristic also of several of the independent coal formations of Europe and America; a similar fossil appears to have been also found by VOYSEY, in the coal of Central

* Although 40 geographical miles distant from *Silhet*, it is named in Mr. COLEBROOKE's paper, *Silhet* limestone; but as other limestones may be found nearer *Silhet*, the necessity of being more definite in our allusions to localities in India is obvious. In the following volume of the same Transactions, this rock (supposing it to be the *Silhet* limestone), is said to be white, and also to contain in the *Garrow* mountains vertebræ of a fish; but unless we presume that the Rev. Dr. BUCKLAND, the eminent author of the paper in question, identified these in Mr. SCOTT's specimens, and that they were overlooked by Messrs. CLIFT and WEBSTER who examined them for COLEBROOKE's paper, we must attribute the statement to a similar vague indication of localities as that above referred to; as we look in vain for an instance of Mr. SCOTT having found vertebræ of fishes in the nummulite limestone, although such were found by him in the sands and clays of the *Caribari* hills, as appears from the list of fossils in COLEBROOKE's paper.

† A madreporite represented by a single star, the radii of which, as well as the form of the fossil, correspond with *T. ocracea*, represented in the Suppl. vol. GRIFF. Anim. King.



India* ; thus, the identity of the different beds referred to, is so far confirmed.

With the exception just mentioned, as well as the impressions of lycopodiums and ferns in the shales connected with *Burdwan* coal, organic remains have been hitherto little noticed in Indian coals ; but when we avail ourselves of improved means of observation we find this branch of the subject no less interesting here, than it had been rendered in Europe†.

The microscopic discoveries of the organic tissues of plants recently made by the Rev. Mr. READE in the ashes of English coal, have induced J. W. GRANT, Esq. of Calcutta to repeat those interesting observations with complete success. The ashes of *Serarim* coal, as well as those afforded by several kinds from the neighbourhood of *Silhet*, and one variety of the *Burdwan* coal, display most distinct signs of organic textures ; so much so, that some of the coals of very different localities may be identified by their ashes as having been formed from similar plants under similar circumstances—for instance, one variety of coal from the foot of the hills near *Silhet*, with another from a lofty bed on the summit of the *Kásya* mountains.

With regard to the nature of the rocks in Central India associated with coal, as far as their details have been made out, there can be little question regarding their identity with the coal measures of *Chirra*. FRANKLIN, after an examination of several districts, considered the sandstones of the *Nerbudda* to represent the new red conglomerate of Europe. The Rev. Mr. EVEREST on the other hand, has assigned excellent reasons for supposing those rocks to bear a closer alliance to the old red sandstone, and his views are strengthened, if not confirmed, by more recent and extended observations in a quarter better calculated to afford satisfactory results. The limestone of the same districts were considered by Captain FRANKLIN, and other writers of the same period with no better reason, to represent the lias ; but Mr. EVEREST justly

* Res. Phys. Class. Asiat. Soc. 1892.—13.

† A gentleman recently engaged in a survey of one of our coal fields, exhibited a large reed which seemed to be an ordinary species of *saccharum*, at one of the late scientific soirees at Government House, as the plant from which coal is derived. It is however stated on the authority of LINDLEY and HUTTON, in their *Fossil Flora*, that no glumaceous plant has been found in a fossil state, though grasses now form a general feature of the vegetation of all countries. Of 260 species of plants discovered in coal formations, 220 are cryptogamous, the remainder afford no instance of any reed, notwithstanding some doubtful appearances to the contrary, and not a single vegetable impression in the coal beds has been identified with any plant now growing on the earth.



observed, that as no fossils have been found in it, the chances are that it belongs to an earlier date*. Numerous limestones are found so much alike in appearance, that it would be quite impossible to draw a line of distinction between them except by means either of their fossil contents, or their relative position to other rocks whose nature may be better understood; but where, as in the present case, such information is also deficient, we must still hesitate to adopt any decided views regarding them.

It may here be desirable to offer a few observations on the changes of levels which have taken place in our various coal fields. Why one should now occupy the summit of a mountain at an elevation of 4300 feet†, and another remain scarcely emerged above the sea‡, is a question that almost suggests itself in this place; and as the nature of coal has led to the conclusion that it must at least have been formed beneath estuaries, if not at greater depths from the surface§, the causes that have produced its present diversified position cannot fail to excite the deepest interest in our minds. In the course of the inquiry we shall find that there is perhaps no portion of the earth to which the doctrine of existing causes can be applied with more effect in accounting for the physical changes that have taken place, than India.

An inspection of the annexed map Pl. VI. will show the probability of the disturbing forces having been directed in certain lines, one of which extending from A, to B, may be named the secondary volcanic band, from its principal energies appearing to have been exerted during the secondary period. VOYSEY, after a careful examination of several districts in Central India, embraced by this belt observes, "I have had too many proofs of the intrusion of trap rocks in this district" (tablelands west of *Nagpore*) "amongst the gneiss to allow me to doubt of their volcanic origin||." Dr. HARDY, Captains FRANKLIN, JENKINS, and COULTHARD in their several communications to the Asiatic Society, have in certain instances expressed similar views regarding several phenomena presented to their notice in the course of their inquiries in Central India. The appearance of lines here observed in the distribution of trap rocks, was formerly supposed to be irreconcilable to the pro-

* *Gleanings of Science*, vol. III. page 207.

† At *Chirra Punji*.

‡ At *Arracan*.

§ Dr. THOMSON considers coal to have been formed by the slow combustion of vegetable matters under great pressure and consequently at considerable depth beneath the surface—vide *outlines Mineralogy and Geology* 1836: others refer its origin merely to the accumulation of vegetable matters in estuaries.

|| *As. Res.* 1829. p. 194.

miscuous nature of volcanic action, and may have tended materially to embarrass the views of geologists in districts not calculated to afford any very striking results.

If we refer to the volcanic belt of the *Molucca* and *Sunda* islands, we shall find evidence of as perfect a lineal tendency in the direction of its active energies as that which the extinct band affords, of having, within the secondary period, extended across the centre of India in a line parallel with the equator from the gulf of *Cambay* to the *Himálaya*.

The active vents of the *Molucca* band have been extended by VON BUCH from *Sumatra* to *Barren Island*, from which point the train may be carried in the same line through the islands of *Narcandam* and *Rambree*, to the coast of *Arracan* and *Chittagong*, as represented on the annexed map; at this situation the two zones intersect each other, so as to form their united focus in the *Kásya* mountains where the energies of both would seem to have been most exerted, the elevatory movements having commenced in the secondary, and continued throughout the tertiary period.

Although oscillations of the surface, and perhaps occasional eruptions may have taken place at all times, attended by the subsidence of one tract, and the upheavement of another, yet the principal energy of the *Vindhya** volcanic belt from A to B, appears as already stated to have been chiefly confined to the secondary period.

A chain of sienite passing on the one hand into granitic rocks, chiefly composed of felspar, and on the other into greenstone and basalt, extends across this portion of the continent. On the flanks of this chain the coal measures repose, rarely forming a series of beds so extensive as observed in England, except perhaps in the *Caribari* hills and along the southern boundary of *Assam*. A sandstone equivalent to the old red, rests immediately on the disturbed strata; with the sandstone, beds of coal and shale, as well as limestone occur: along the flanks of the chain thermal springs are situated, one of these has been recently found by Mr. BETTS in the *Damuda* river near the foot of the *Pachite* hills†. In the *Nerbudda* valley two have also been brought to notice by Dr. SPILSBURY; in *Curruckpore** district several hot springs are mention-

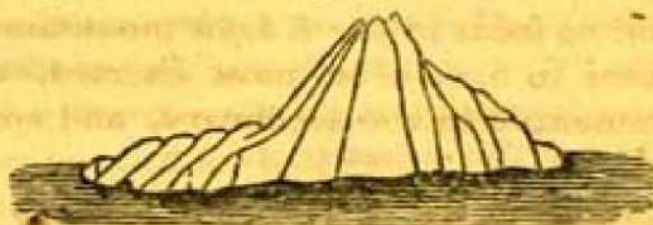
* Such is the geographical name of the range which extends from the *Gulf* of *Cambay* to the *Ganges* at *Bágalpore*, from which it would seem from certain indications (24.49) to have been extended by a series, obliterated ridges across the *Delta* to the *Garrow* mountains, the leading geological features of the older rocks being, as far as they are as yet determined, the same on both sides (41.)

† Journ. As. Soc. 1832-36.

ed by Mr. JONES, in addition to the well known spring at *Mongir*. In *Assam*, on the opposite side of the delta they are also common in the same line in several situations along the foot of the *Naga* mountains, thus confirming other indications that have been adduced of the volcanic agency of this extensive band throughout its extent on both sides of the Ganges.

The other band now to be noticed is a continuation of that which has been described by VON BUCH, as belonging to the volcanic train of the *Moluccas*; but it has been extended no farther by him in the direction in which we are now to trace it, than *Barren Island* in $12^{\circ} 19' N.$ lat. in the Bay of Bengal*.

The island of *Narcandam* situated in $13^{\circ} 22' N.$ lat. is a volcanic cone raised to the height of seven or eight hundred feet. The annexed outline, reduced from a sketch made by WILLIAM GRIFFITH, Esq., while



passing within half a mile of the shore, shews the figure of the cone; the upper part of which is quite naked, presenting lines such as were doubtlessly formed by lava currents descending from the crater to the base, which last is covered with vegetation. No soundings are to be found at the distance of half a mile from the shore.

The next volcanic islands to be observed, are those which form a small archipelago on the *Arracan* coast. The largest of these is *Rambree*, described in the fourth volume of the *Asiatic Journal* by the late Lieut. FOLEY. It is situated close to the low marshy coast of *Arracan*, and is formed of ranges of mountains extending in the direction of north-northwest, varying in height from five to fifteen hundred feet; one peak named *Jeeka*, is raised to an elevation of 3000 feet above the sea. The plains from which the ridges ascend slope down to the sea with the occasional interruption of low ridges containing basin-like cavities large enough for the cultivation of rice. The highest portions of the plain are composed of shingle, the same as the recent breach, a circumstance which may be observed on removing the soil.

Earthy cones covered merely by a green sward, and situated generally in marshy grounds are ranged along the shores of *Rambree* as well as the adjoining islands and coast of *Arracan*: their naked appearance,

* See Plate III. LYELL'S Principles Geol. vol. XI. 4th ed.



contrasted with the dense marshy forests from which they ascend, is said to have a singular effect, heightened by a few scattered plants of the *Tamarix indica*, elsewhere found only in sandy deltas and islands along the course of the great rivers, growing on their sides; on the summit of each cone a spring of muddy water is found, through which gas escapes in bubbles, a peculiarity which has procured for them the name of mud volcanoes. These cones, although they excited no interest when first described by Lieut. FOLEY*, are characteristics of the coasts of *Chili* and *Calabria*, and are well known to result from some of the most interesting and awful visitations to which the surface of the earth is exposed. They are of a similar nature, but of much greater size than the cones of earth which formed on the coast of *Chili* during the great earthquake of 1822, where they are referred to fissures produced in the granitic rocks through which water mixed with mud was thrown up†. The alluvial plains of *Calabria* present similar cones of sand, indicating the alternate rising and sinking of the ground.

Sir W. HAMILTON explains such phenomena by supposing the first movement to have raised the fissured plain from below upwards, so that the rivers and stagnant waters in bogs sank down, but when the ground was returned with violence to its former position the mud was thrown up in jets through fissures‡.

Near *Kaeng* in *Rambree*, Lieutenant FOLEY found at the foot of one of these cones, masses resembling clink stone, of green color, very hard and sonorous when struck, and he naturally concluded that they must have been ejected from a volcanic vent.

Two of the largest of the cones are situated on a ridge of sandstone 300 feet in height, about 3 miles from *Kyouk Phyoo*, the capital of the island. From one of them called *Nayadong*, vapour and flame was seen by the inhabitants of *Kyouk Phyoo* to issue to the height of several hundred feet above the summit during the principal shock of the earthquake of the 26th August 1833. The phenomenon may have been occasioned by the concussion of the earthquake bursting open some new fissure from which a transitory stream of inflammable gas, such as that which supplies the celebrated burning fountain of *Chittagong* may have issued.

The island of *Chaduba* adjoining *Rambree* is represented in most old charts as a burning mountain, from which it may be alleged that early surveyors witnessed its eruptions; the higher ridges of neither of these islands have been examined, but the shores of *Chaduba*, like those of

* They were referred by some merely to the decomposition of iron pyrites.

† LYELL, 2, 232, 4th ed.

‡ LYELL, 2, 278. 4th ed.

Rambree, present numerous earthy cones, with springs of mud and gas on their summits.

Three miles south of *Chaduba*, there is a small cone composed of scoriaceous rocks, raised 200 feet above the sea; soundings at its base display those peculiarities which always characterise volcanic coasts*.

The above facts might alone be sufficient to prove the volcanic nature of the coast of *Arracan*, and to justify our extending the train of active volcanic agency from *Barren Island* to the 20° N. Lat. or within five degrees of the *Kásya* mountains as in the annexed map. But the events which took place on this coast during the great earthquake of the 2nd April 1762, and to which the earthy cones are no doubt referrible, place the question in a less doubtful point of view. Sixty square miles of the *Chittagong* coast, suddenly, and permanently subsided during this earthquake. *Ces-lung-Toom*, one of the *Mug* mountains, entirely disappeared, and another sunk so low that its summit only remained visible†. Four hills are described as having been variously rent asunder, leaving open chasms differing from 30 to 60 feet in width‡. In the plain, the earth opened in several places, throwing up water and mud of a sulphurous smell. At *Bar Charra*, 200 lives were lost on a tract of ground that sunk suddenly, but it is said that at *Arracan* where it was supposed the chief force was displayed§, the effects were as fatal as those of the earthquake which happened about the same period at *Lisbon*. At *Dacca* the waters rose so suddenly as to cast several hundred boats on shore, and on retiring, the wave which is described as terrible, swept numbers of persons away||.

* This is stated on the authority of Captain LLOYD, Marine Surveyor General, to whom the author is indebted for several other interesting items regarding this coast.

† Phil. Trans. vol. LIII. p. 256.

‡ Other mountains and hills were variously disturbed or destroyed, some partly or entirely thrown down so as to obstruct the course of rivers; others sank 25 and others 40 cubits. A *Toom* hill called *Chatter Puttuah*, is described as having "split by little and little till it became reduced to the level of the plain," and in other cases creeks were closed up by banks of sand rising from their bottom. See Phil. Trans. 1763; upon the whole the history of this earthquake may be supposed to be very incomplete, its effects in one district only of the extensive line of coast in which it happened being imperfectly described.

§ See also observations on the disappearance of various islands on the *Chittagong* coast, which are alluded to in the nautical works of the Arabs in the middle of the 16th century. (Journal As. Soc. 466.)—J. P.

|| As an instance of the readiness with which such visitations are forgotten, I may mention that a well written "Historical and Statistical Account of *Chittagong*" has recently been published by a gentleman many years resident in the province, in which no mention is made of this earthquake, though a Chronological list of 120 *râjns* is given, and the political history traced to a proportionally early date.

It is an interesting observation connected with this earthquake as with that of 26th August 1833, that although both were peculiarly felt at *Arracan*, as well as toward the hills on the northwest side of Bengal, yet they were comparatively little felt in several intermediate situations. At *Ghirotty* where Col. COOTE and a regiment of Europeans were at the time encamped the earthquake of 1762 is described as most alarming, the waters in the rivers and tanks being thrown up to the height of 6 feet, although at *Chandernagore*, only a few miles distant in a southeast direction, its effects were scarcely perceptible.

The earthquake of 26th August 1833, which was attended with the peculiar eruption already adverted to from one of the volcanoes near *Kyook Phyoo*, was more severely felt at *Mongir*, where the fort and several houses were injured, than in any intermediate position, which might lead us to suppose that although the volcanic energy of the igneous bands we have pointed out may have become extinct, or at least comparatively dormant as they recede from the seas on either side of India, yet that they are still the peculiar seat of occasional disturbance.

The province of *Cutch* already adverted to as forming the western boundary of the carboniferous zone, lost a considerable portion of its surface, which subsided suddenly during an earthquake in 1819, while at the same time an adjoining tract was raised to a higher position than it had previously occupied*.

Although the surface may seem to have acquired greater stability in recent times in proportion as we proceed inland from the points at which the two volcanic bands are intersected by the seas at *Cutch*, and *Chittagong*, yet as far as we are prepared to judge from unquestionable data, the amount of disturbance which has taken place appears to increase as we proceed from *Cutch* towards the east, and from *Chittagong* towards the north, until we arrive at that situation at which both bands meet and cross each other; and thus by a species of synthesis, we find the common focus of disturbance to be situated in the *Kásya* mountains, about the very position in which we have the most direct and unquestionable proof of concentrated action, the circumstances of the raised beach being sufficient evidence of these mountains having been raised to nearly twice their former height since the commencement of the tertiary period.

It remains for the present uncertain whether so great a change in the physical features of India has been effected by paroxysmal violence, such as occasionally even in our own times has been known to destroy one portion of the land, and to raise up another, or by a slow and gradual

* Lyell, 11. 237, also see Capt. BURNES' report on Cutch.—ED.

perpetuation of elevatory movements. It has been before remarked that a destruction of an elevated tract of land, which probably formed a more or less complete series of ridges extending between *Rajmahl* and the *Garrow* mountains, may have taken place.

Considering the geological features of those table-lands and mountain chains which extend from *Rajmahl* to the gulf of *Cambay* on the one side, and from the *Garrow* mountains to the *Himálaya* on the other, it becomes a matter of greater probability that the present breach between *Rajmahl* and the *Garrow* mountains was more or less occupied by hills and table-lands, than that this tract of plain escaped all those vicissitudes to which every other feature of our geography has been subject. If this tract, like every other portion of the band which it contributes to form, once presented elevated lands, they would necessarily have formed the northern coast of that sea which it is evident from the remains of an estuary in the *Caribari* hills, as well as from the littoral remains which are spread over the surface of the *Kásya* mountains, must have occupied the place of the present plains of Bengal.

If we admit this reasoning to be correct, little ingenuity will be required to account in a satisfactory way for some of the most interesting points in our geology. The destruction of the highlands, which it is thus probable once filled the space alluded to, by subsidence during some great paroxysm, when another tract of equal extent may have been elevated; or by means of a succession of earthquakes, to the destructive effects of which the action of a sea on the one side, and of the waters of the two great rivers on the other, would powerfully contribute. The interesting discoveries now in progress in Fort William of the bones of land animals intermingled with those of amphibious reptiles and fragments of mountain limestone, wood, and coal, at a depth of from 370 to 450 feet* beneath this portion of the Gangetic delta, seem to refer to some such destruction of dry land on the northern side of Bengal, as that which has been here supposed to have taken place†.

Should the catastrophe referred to have been sudden, we may easily imagine that a devastating wave would have been occasioned of sufficient

* I here refer to the experiment of boring for water now carried on in Fort William, in which process the augur, five inches in diameter, brought up nothing but clays, sands, and gravels, until the depth of 350 feet had been attained, when the lower end of a humerus, supposed by Mr. J. PRINSEP to resemble that of a hyena, was extracted. Soon after a portion of the rib, a chelonian reptile, with detached fragments of mountain limestone resembling that of the *Kásya* mountains, but much corroded, as well as fragments of wood, coal, &c. The depth now attained is 450 feet, and the work is still going on with spirit.

† Two other fragments of the plastron of a turtle have just been brought up from 450 feet depth.—ED.



extent to account for many of the denuded features presented by the geology of Central, and Southern India. The overthrow of the mammoth, whose gigantic remains have been brought to light in such abundance in Central India by Dr. SPILSBURY, may have been occasioned by the same cause; and should signs of upheavement be found to extend at intervals from the raised beach at *Chirra Punji*, towards *Ava* and the *Chittagong* coast, we may be able to refer the destruction of the various species of mastodon, and other extinct animals whose bones are extensively dispersed throughout *Burma*, to the events which took place at the time of such commotion. When the countries in this direction shall have been farther explored by geologists, we may expect to arrive at more exact conclusions than at present, as to the time these changes took place, and the circumstances of the animal and vegetable kingdoms under which they occurred.

Description of the Plates.

MAP.—PLATE VI.

The geological map of Upper India has been constructed chiefly from the authorities referred to in the text; its utility will probably consist merely in shewing how much remains to be done in researches of this nature. The publications of BUCHANAN, HEYNE, VOYSEY, CRAWFORD, DAVY, and many more recent writers, as BENZA, STIRLING, BABINGTON, PEMBERTON, LOW, and several others, some of whose inquiries are still in progress, will probably, when carefully examined, afford sufficient materials for including the southern portion of the continent in this geological sketch. The want of sufficient information regarding the Great Desert has prevented more being said on the subject than occurs in paras. 142-3: barometrical measurements of its levels, and the navigableness of the *Loony* or Salt River, are objects well deserving the attention of future travellers in this quarter. The delineation of the rocks on this portion of the map has been partly derived from ELPHINSTONE'S *Journey to Caubul*, and Lieutenant BOILEAU'S recent work on the Desert States, which I have not had an opportunity of acknowledging in the text.

PLATE VII.

Fig. 1. Fragment of a *Phytolithus transversus*, from the coal at *Serarim* in the *Kasya* mountains.

Fig. 2. Apparently the mould of a stem found in the shale adjoining the coal measures at *Chirra Punji*.

Figs. 4, 5, 6, 7. Several views of a fossil which Mr. GRIFFITH thinks is probably the lomentum of a species of mimosa, found imbedded in the red sandstone on the road between *Chirra* and *Serarim*.

Fig. 3. Found with the above fruit, and is probably a portion of the stem of the plant to which the fruit belonged.

Figs. 8, 9, 10, 11. *Teredinities*, found in great abundance in the *Chirra Punji* sand-stone, on which the limestone and coal rest.

Fig. 11. From the shale adjoining the coal at *Chirra*.

Fig. 12. Shell from the lower beds of the great sandstone.

PLATE VIII.

Organic remains from the lime-stone which intervenes between the *teredinite* sandstone and the coal at *Chirra*. The same remains are also



contained in the limestone connected with coal in *Assam*, and may be found on farther inquiry to characterise this member of the coal measures generally throughout India.

The fossils represented in the above plates, together with the views to which they have partly given rise, are so much of the results of my late journey to *Assam*, as appear at present to be connected with the subject of coal. Other more extensive collections of a similar nature from the raised beach referred in section II., are less connected with the natural history of our coal-fields, but will be progressively brought forward on more suitable occasions: in the mean time Dr. CANTOR has kindly undertaken to submit a sample of the whole to naturalists at home, whose views will be a guide to farther investigations on the subject. J. M.

IX.—*Abstract of a Meteorological Register kept at the Cathmandu Residency for the month of September, 1837. By A. CAMPBELL, Esq. Nipal Residency.*

Day.	Observations at 10 A. M.				Observations at 4 P. M.				Wind, Weather, Rain.		
	Barometer.	Thermometer.			Barometer.	Thermometer.			At 10 A. M.	At 4 P. M.	Rain.
	Height at 32° Fah.	In Air.	Wet bulb.	Difference.	Height at 32° Fah.	In Air.	Wet bulb.	Difference.			
1	25,242	74	69	5	25,176	78	70	8	W. Cloudy.	N. W. Clear	
2	,258	74	69	5	,165	76	70	6	Do. Do.	W. Shy.	
3	,270	73	68	5	,174	78	70	8	N. W. Do.	W. Fair.	519
4	,202	73	68	5	,083	75	69	6	W. Do.	S. W. Rain	346
5	,181	71	66	5	,089	75	70	5	Do. Do.	W. Cloudy.	200
6	,141	71	66	5	,111	72	68	4	S. W. Do.	S. W. Rn.	
7	,147	72	68	4	,107	72	68	4	Do. Do.	S. E. Do.	250
8	,221	72	68	4	,146	74	70	4	W. Do.	W. Fine.	865
9	,247	72	68	4	,191	72	69	3	Do. Do.	S. W. Rn.	1,297
10	,259	71	68	3	,190	74	70	4	S. W. Fair.	W. Clear.	519
11	,287	71	67	4	,207	76	70	6	W. Clear.	W. Thund.	
12	,328	70	66	4	,268	70	66	4	W. Cloudy.	W. Calm.	1,020
13	,338	70	66	4	,280	72	70	7	W. Clear.	Do. Bright.	150
14	,389	72	68	4	,279	76	70	6	S. W. Cdy.	Do. Do.	
15	,369	72	68	4	,279	75	71	4	W. Clear.	S. W. Cdy.	
16	,295	72	68	4	,199	75	70	5	S. W. Cdy.	Do. Do.	
17	,229	72	68	4	,166	77	72	5	Do. Clear.	W. Clear.	
18	,291	72	66	6	,240	73	67	6	W. Do.	S. W. Cld.	
19	,337	71	65	6	,283	75	68	7	S. W. Cdy.	W. Clear.	
20	,372	70	66	4	,297	75	66	9	Do. Do.	Do. Do.	
21	,427	68	64	4	,305	75	68	7	W. Clear.	Do. Do.	
22	,449	69	64	5	,339	73	68	5	Do. Do.	Do. Do.	
23	,454	69	64	5	,331	72	66	6	Do. Do.	Do. Cldy.	
24											
25											
26											
27											
28											
29											
30											
31											
Mn.	25,292	71.3	66.8	4.5	25,257	74.5	68.6	5.9			5,166

No Rain since the 13th but the neighbouring mountain tops have been cloudy throughout the month. A slight shock of earthquake at 11-45 P. M. of the 8th.



X.—Meteorological Register kept at Darjiling, for September, 1837. By Dr. H. CHAPMAN.

Day	Barometer.		Ther. in Air.		Wet Bulb. Tr.		Regtg. Ther.		Dew-point.		Rain.	Wind.	Weather, &c.		Boiling Point Water.	
	10 A. M.	4 P. M.	10 A. M.	4 P. M.	10 A. M.	4 P. M.	Min.	Max.	10 A. M.	4 P. M.						
													Morn.	Even.		Morning.	Evening.
1	23.300	23.203	68	66.5	62.5	60	59.5	70	62.5	58.5	0.66	N. E.	S. E.	Cirri. cum. intpspd. Hvy. cly. N. & N.W. Generally overcast.	Thin fog.	.7
2	.316	.210	63	62.5	61	61.5	54.5	68.5	61	61.5	64	N. E.	S. W.	Fog and drizzle.	Fog and drizzle.	.7
3	.319	.240	61	58.5	60	58	56	61.5	60.5	58	64	N. E.	E.	Fog.	Ditto ditto.	.7
4	.246	.162	60	60.5	59.5	60	55.5	63	59.5	60	35	N. E.	S. S. W.	Fog.	Ditto ditto.	.5
5	.211	.148	59.5	61.5	59	60.5	57	62.5	59	60.5	59	N. E.	Calm.	Fog and rain.	Cirri and cum intpspd.	.5
6	.195	.122	64	64	62	62.5	56	66.5	62	62.5	1.29	Calm.	Calm.	Cum and cirri intpspd. Rain fog in valleys.	Cloudy.	.5
7	.190	.127	59	61	58.5	59	57.5	62.5	58.5	59	2.69	N. E.	N. E.	Heavy rain.	Cloudy.	.5
8	.257	.205	65	63.5	60.5	61	56.5	68	60	61	87	Calm.	N. E.	Cloudy. Cumuli.	Cum. intpspd.	.6
9	.290	.215	65.5	65.5	62.5	63	56.5	66	63	63	02	N. E.	Calm.	Generally clear.	Cloudy.	.6
10	.300	.223	68	67.5	64	65	57	69.5	64	65	....	N. W.	W.	Cum. interspersed.	Ditto.	.5
11	.324	.245	66.5	65.5	63	60	58	67	62.5	60	2.43	E.	S. W.	Cloudy.	Cum. and cirri.	.6
12	.350	.300	59.5	61	59	60	55	62	59	60	64	N. E.	Calm.	Fog and drizzling rain.	Clearing.	.7
13	.360	.300	64.5	62	62	60.5	56	65.5	62	60.5	03	S. W.	S. W.	Generally overcast.	Overcast.	.7
14	.383	.310	65	64.5	63	62.5	56.5	65	63	62.5	04	Calm.	S. S. W.	Overcast.	Overcast and foggy.	.8
15	.395	.314	63.5	63	61.5	61	56	65	61.5	61	12	ditto	S. W.	Ditto.	Overcast.	.8
16	.303	.192	64.5	61.5	62	60	58	63	62	60	02	W.	W.	Overcast and foggy.	Ditto.	.6
17	.250	.184	64	61.5	61.5	60.5	57	64.5	61	60.5	31	W.	W.	Overcast.	Overcast and foggy.	.5
18	.292	.236	61.5	60	60	58.5	55	62	60.5	58.5	19	Calm.	S. W.	Rain and fog.	Fog.	.7
19	.328	.280	59	59.5	58	58.5	58	60.5	58	58.5	06	W.	Calm.	Overcast and fog.	Ditto.	.7
20	.387	.305	60.5	62	59	60	53	66	59	60	08	Calm.	W.	Cloudy.	Clouds breaking.	.7
21	.414	.320	59.5	62.5	59	61	55	64	59	61	42	ditto	W. S. W.	Fog.	Overcast.	200.0
22	.442	.376	58	59	57	57.5	55	61	57	57.5	56	E.	W.	Galy. overcast & dzg. rn.	Ditto.	200.0
23	.446	.334	60	62	58	60	53	65.5	58	60	....	Calm.	Calm.	Cloudy, cumuli.	Ditto.	199.8
24	.410	.300	60.5	63	58	60	53.5	66	58	60	01	S. W.	S. W.	Cloudy.	Cloudy (cum.)	.7
25	.390	.280	59.5	63.5	58	60.5	53	64.5	58	60	55	Calm.	Calm.	Generally overcast.	Cloudy (cum.)	.7
26	.374	.278	57	57	55.5	55	63	61	55.5	55	27	ditto	ditto	Overcast.	Rain.	.7
27	.434	.343	62	61	59	57	51.5	63	59	57	01	ditto	ditto	Cloudy.	Cloudy.	200.0
28	.416	.330	63	63	59.5	59	52	66	59.5	59	03	N.	ditto	Cumuli. intpspd.	Cumuli.	200.0
29	.444	.350	67	65	64	62	53	67	64	62	....	Calm.	W.	Ditto ditto.	Ditto.	200.0
30	.437	.356	65	62.5	61.5	59	52.5	65.5	61.5	59	07	ditto	Calm.	Clear.	Cldy. cirri. & cum. intpspd.	199.8
Ma.	23.341	23.259	62.4	62.3	60.3	60.1	55.2	64.7	60.3	60	13.59					

Rain by Corsley's Pluviometer 15.47 inches.

Darjiling, October, 1837.

Day.	Barometer.		Ther.		Wet Bulb, Tr.		Regtg. Fther.		Dew-point.		Rain.	Wind.		Appearance of the Sky, &c.		Boiling Point Water.
	10 A. M.	4 P. M.	10 A. M.	4 P. M.	10 A. M.	4 P. M.	10 A. M.	4 P. M.	10 A. M.	4 P. M.						
1	23.442	23.342	65	67	61	63	53	68	60.5	63	.....	Calm.	W.	Clear.	Cloudy.	199.8
2	.408	.310	66	63	62	59.5	53.5	67	62	59.5	.....	Ditto	Calm	Cloudy cumuli.	Cum: interspersed.	.8
3	.395	.294	68	62	64	59	53.5	68	64	59	.....	Ditto	S. W.	Cum. interspersed.	Cloudy thunder to W.	200.0
4	.384	.308	65	64	58.5	57	53.5	67	57	56	0.08	E.	Calm	Generally clear.	Cum. interspersed.	199.8
5	.352	.288	56	54.5	54	50.5	50.5	66	54	50	3.47	N. E.	N. N. E.	Rain.	Rain.	.8
6	.376	.316	54.5	55	53.5	54	55	55	54	54	4.87	N. N. E.	N. E.	Heavy rain.	Heavy rain and fog.	.7
7	.345	.275	54	52.5	53.5	51	52	55	53.5	51	2.58	N. E.	N.	Ditto ditto.	Rain.	.7
8	.280	.195	62	63	59	59.5	50	63	53	59.5	03	N. E.	W.	Generally clear.	Cloudy.	.5
9	.260	.190	60.5	60.5	57	57.5	53.5	63	58	57.5	01	Calm.	S. W.	Cum. interspersed.	Ditto.	.5
10	.316	.237	61	61	58	59	53.5	64	53	61	.....	Ditto.	Calm.	Cloudy.	Clear.	.6
11	.350	.274	63	65	51.5	58	52.5	67	47	57	.....	N.	S. W.	Clear.	Clear.	.6
12	.375	.315	62	64	57	59	52.5	67	57	58.5	.....	N. E.	S. W.	Generally clear.	Cumuli.	.7
13	.423	.375	62	64	59	60	51.5	66.5	59	60	.....	E.	S. W.	Cloudy S. & S. W.	Cloudy.	.8
14	.434	.355	62	62	58.5	58	53	66.5	58.5	58.5	.....	Calm.	W. S. W.	Cloudy.	Ditto.	.8
15	.407	.320	59	60	56.5	56	51.5	63.5	56.5	56	.....	N. E.	S. W.	Ditto.	Ditto.	.8
16	.391	.312	59.5	58	55	54	49	61	55	54	25	E.	E. S. E.	Cum. interspersed	Com. interspersed.	.7
17	.420	.373	60	62.5	53.5	57.5	45	62.5	50	57.5	.....	S. W.	W.	Generally clear.	Ditto ditto.	.7
18	.516	.439	62	60	55	55	48	63	53	54	.....	W.	W.	Clear.	Cloudy.	200.0
19	.556	.495	64	65	52	53	50	67	46	56	.....	Calm.	S. W.	Clear.	Clear.	.2
20	.558	.448	64	64.5	56.5	56	50	65	55.5	52	.....	W.	S. W.	Ditto.	Ditto.	.2
21	.472	.377	62	61	49.5	53.5	49.5	65	40	53	.....	S. W.	W.	Cirri interspersed.	Cloudy cirri.	200.0
22	.411	.300	63	60.5	57	55.5	50	64.5	.....	.....	.....	S. W.	S. W.	Cloudy cirri.	Cumuli.	..
23	.389	.328	55.5	58	53	54	47	60	.....	.....	.....	N.	S. W.	Overcast.	Ditto.	..
24	.438	.346	58.5	58	53.5	54	46	62	54.5	54	005	N. E.	N. E.	Clear.	Overcast thunder N.	00.0
25	.424	.372	59.5	59	55	56	46	62	55	55.5	.....	N. E.	S. W.	Ditto.	Cumuli.	199.7
26	.420	.390	64	60.5	57	55.5	48	64	56	55	.....	N. E.	S. S. W.	Ditto.	Cum. interspersed.	200.0
27	.448	.368	64	64	56	57	48	65	53	52	.....	W.	W.	Ditto.	Clear.	199.7
28	.400	.372	56	61	50	55	46	62	43	52	.....	N. E.	W.	Ditto.	Ditto.	.8
29	.438	.364	54	60	46.5	52	44	62	38.5	49	.....	N. E.	S. W.	Ditto.	Ditto.	.7
30	.450	.380	56	59	51	53	44	60	44.5	48.5	.....	W.	W.	Ditto.	Ditto.	.7
31	.350	.300	50	58	44.5	51.5	43.5	59	37	47	.....	N. E.	W.	Ditto.	Ditto.	.7
Ma.	23.409	23.334	60	60.5	55	56	49.5	66.5	53	55	11.295					

Meteorological Register kept at Darjiling, for November, 1837. By Lt. Col. LLOYD, to complete the year.

Day	Barometer.		Therm. in Air.		Wet. Bulb. Tr.		Regtg. Ther.		Dew-point.		Rain.	Wind.		Weather, &c.		Boiling Point Water.
	10 A. M.	4 P. M.	10 A.	4 P. M.	10 A. M.	4 P. M.	Min.	Max.	10 A. M.	4 P. M.		Morn.	Even.	Morning.	Evening.	
1	23.318	23.228	53.5	52	49	50	44.5	59	45	49	..	N. E.	S. W.	Clear.	Overcast.	199.5
2	348	296	48	54	46	52	43	56	44	50	..	N. E.	S. W.	Cloudy.	Cumuli.	.4
3	432	332	53.5	57	50	51	43.5	59.5	44.5	46	..	N. E.	S. W.	Clear.	Cloudy.	.5
4	410	322	57	60	51	53	45	61	45	49	..	N. E.	W.	Clear.	Cumuli.	.7
5	348	256	53	54.5	49	50	44	57	47	50	..	N.	W.S.W.	Cirri. interspersed.	Cumuli interspersed.	.4
6	296	...	50	...	47.5	...	41.5	...	48	...	..	N.	...	Cirri.		.3
7	...	252	...	52	...	49	42.5	55.5	...	50	..	...	S. W.	Cirri.	Cloudy.	...
8	374	272	53	57	50	53	42	58	48.5	51	..	N.	W.	Clear.	Cumuli.	.6
9	350	288	50.5	58	46	53.5	43	60	40	52	..	N.	W.	Ditto.	Ditto.	.7
10	382	300	55	60	50	54.5	46.5	61	49	53	..	N.	W.	Ditto.	Cirri.	.9
11	370	280	55.5	55.5	52.5	52	45.5	57.5	53	53	..	N. E.	S. W.	Cirri.	Cloudy.	.7
12	350	284	55	56.5	53	52	45	58.5	53	52.5	..	N.	N. E.	W. Cumuli.	Cumuli.	.5
13	386	324	55	58	50.5	53	46	61	48	52.5	..	N.	S.S.W.	Cirri.	Ditto.	.7
14	380	318	57	57.5	52	53	47	63	49	52	..	N.	W.	Clear.	Cirri, interspersed.	.7
15	360	264	57	55.5	54	51.5	45.5	61	52	51	..	N.W.	W.S.W.	Ditto.	Overcast.	.8
16	348	250	53	53	50	51	45	55	49	51	..	E.	N. E.	Cumuli.	Ditto.	.3
17	386	342	55	54	53	52.5	45	57	53	53	..	N. E.	W.	Cirri. Cumuli.	Cloudy.	.5
18	434	348	54	55	51.5	52.5	46	57	50	52	.02	N. E.	N. W.	Cirri.	Ditto.	.6
19	398	334	53.5	52.5	51	50	47	58	51	50	..	N.	W.S.W.	Cirri strati.	Ditto.	.7
20	420	302	56	54	53	51	46	56	52.5	51	..	W.	W.	Cirri generally fine.	Overcast.	.7
21	374	308	54	53	51.5	51	45	55	51	51	..	N. E.	N. E.	Cirri strati fine.	Cloudy.	.8
22	384	292	55	53	53	50.5	44.5	55	53	50	..	N. E.	N. E.	Cirri.	Ditto.	.8
23	350	260	52	53	49.5	50	43.5	55	49	50	..	N. W.	W.	Clear	Ditto.	.6
24	340	270	47	49	46	48	43.5	51.5	46	47	.04	N. E.	W.	Cloudy.	Thick fog.	.5
25	372	286	48	49	47	49	42	51	46	47	..	N. E.	N. E.	Ditto.	Overcast.	.5
26	304	212	47	48.5	46.5	46.5	41	50	46	46	..	N.N.E.	W.	Ditto.	Cloudy.	.4
27	274	190	44	49	43	46	40	49.5	41.5	42	..	S.S.W.	W.	Overcast.	Ditto.	.3
28	324	248	46.5	49	44.5	46	38	50.5	45	46	.09	N. E.	W.S.W.	Cirri strati.	Cirri cumuli.	.5
29	392	350	49	52	47	49	39	53	47	46	..	N. E.	N. E.	Cirri.	Cirri.	.7
30	478	390	46.5	53	42	43	40	55	32	32	..	N. E.	N. E.	Clear.	Clear.	200.0
Mn.	23.368	23.290	52	53.5	49	50	43.5	56.5	47.5	48.5	.15					

14th December 1837, 10 A. M. Barometer. 23.000 Thermometer, 42° Boiling point water, 193°.7
 Ditto, Noon. Ditto, 52 Ditto, 197.8
 17th Ditto, 1 P. M. Ditto, 51 Ditto, 197
 Ditto, 2 P. M. Ditto, 57 Ditto, 196.5

XI.—*Proceedings of the Asiatic Society.**Wednesday Evening, the 7th February, 1838.*

D. HARE, Esq., senior member present, in the chair.

Major W. H. SLEEMAN, Messrs. J. W. GRANT, G. A. PRINSEP, Assistant Surgeon J. ARNOTT, and Dr. BONNALL, were elected ordinary members of the Society.

SYED KERA'MAT ALI, proposed at the last meeting, was upon the recommendation of the Committee of Papers elected an associate member.

The CHEVALIER AMÉDE'E JAUBERT, President of the Asiatic Society of Paris, proposed at the last meeting, was upon the favorable report of the Committee of Papers, elected an honorary member.

CHARLES FRASER, Esq. Commissioner at *Hoshungabad*, and MANATON OMMANEY, Esq., proposed by the Secretary, seconded by Col. CAULFIELD.

Dr. W. H. GREEN, proposed by the Secretary, seconded by Dr. McCLELLAND.

Lieut. A. BIGGE, Assistant to the Governor General's agent in *Assam*, proposed by Captain PEMBERTON, seconded by the Secretary.

Mr. W. DENT, requested that his name might be withdrawn from the list of members from the beginning of the current year.

Read letters from M. E. BURNOUF, and Dr. JULES MOHL, acknowledging the arrival of the several cases of Sanskrit books, dispatched hence last year; and presenting various works. (See Library.)

Dr. MOHL. mentions having obtained for the Society, a copy of the first volume of the *Collection Orientale* now under publication at great cost by the French Government. It contains the first part of *Raschideddin*, by M. QUATREME'RE DE QUINCEY.Also, letters from the Secretaries of the American Philosophical Society and the Cambridge Philosophical Society acknowledging the receipt of the *Researches*, vol. xx.

Read a letter from M. CSOMA DE KÖRÖS, thanking the Society for the renewed accommodation afforded him during his stay in Calcutta.

Read a letter from MAHA'RA'JA HINDU RAÓ, stating his readiness to deliver the fragments of the Ancient Hindu Pillar, to the executive engineer when required.

Library.

Read a letter from Professor WILSON, presenting copy of his translation of "The Sāṅkhya Kārikā" or memorial verses on the Sāṅkhya philosophy.

Read a letter from J. VAUGHAN, Esq. Librarian of the American Philosophical Society, forwarding for presentation a copy of Vol. V. part 3rd of their transactions.

The following works presented by the Asiatic Society of Paris.

*Géographie d'Aboulfeda, texte arabe, de par M. M. REINAUD, et le Baron MACGUCKIN DE SLANE.**Elements de la langue Géorgienne, par M. BROSETTE Jeune.*Also, a number of duplicates of the *Journal Asiatique* to complete the Society's series.

The following Books were likewise presented:—

*Verhandelingen Van Het Bataviasche Genootschap Van Kunsten En Wetenschappen—by the Batavian Society.**Narrative of a tour through the Western states of Rājwāra in 1835, by Lieut.**A. H. E. BOILEAU, Engineers—by the Honorable Government.**Report on Amherst Town and the Tenasserim Provinces, by Dr. J. W. HELFER, 2 copies—presented by F. J. Halliday. Sec. on the part of Government.**Reports of a committee for investigating the coal and mineral resources of India—by the Committee's Sec. Dr. McCLELLAND.**The Quarterly Journal of the Calcutta Medical and Physical Society, Nos. 4 and 5—by the Editors.**Proceedings of the Geological Society of London, No. 51—by the Society.**Meteorological Register for Dec. 1837—by the Surveyor General.**From the Booksellers.**Lardner's Cabinet Cyclopædia—Domestic Economy.**Wellesley Dispatches, Vol. V.*

The Secretary read the following letter from Government on the subject of the Journal, deeming it, though of more immediate concern to himself as editor and proprietor of that work, in principle addressed to the Society, whose labours it eulogized.

To JAMES PRINSEP, Esq. *Secretary to the Asiatic Society.*

SIR,

I am directed by the Honorable the Deputy Governor of Bengal to transmit to you the annexed extract from a letter, No. 51 of 1837, from the Honorable the Court of Directors in the public department, dated the 25th October, in order that the wishes of the Honorable Court in regard to the transmission of 40 copies of the Society's Journal from its commencement to the period of dispatch may be complied with, and that 40 copies of each of the succeeding numbers as they shall respectively appear, be in future forwarded to this Department, and for transmission to the Honorable Court.

Fort William, }
17th January, 1838. }

I have the honor to be, &c.

(Signed) H. T. PRINSEP,
Secy. to Govt.

Extract from Letter, No. 51, of 1837, from the Honorable the Court of Directors, dated the 25th October.

"We have always felt the importance of affording due encouragement to the promotion of learned and scientific pursuits in the territories subject to our Government, and more especially to those branches of knowledge which have peculiar reference to Oriental objects. The Asiatic Society of Bengal, having labored long and successfully to collect and diffuse the best and most accurate information upon such topics, we desire that you forward to us 40 copies of the Journal of that Society from its commencement to the period of dispatch; and that you will subsequently continue to transmit 40 copies of each of the succeeding numbers as they shall respectively appear."

(True extract,)

H. T. PRINSEP, *Secy. to Govt.*

A representation having lately been made to Government respecting the publication of the Bishop of Cochin China's Vocabulary forming an Appendix to the Dictionary now nearly completed, the following answer was received.

To JAMES PRINSEP, Esq. *Secretary to the Asiatic Society.*

SIR,

I am directed to acknowledge the receipt of your letter, dated the 13th instant, soliciting that the Government will take upon itself the entire expence of printing the Vocabulary or English Appendix to the Cochin Chinese and Latin Dictionary about to be published by the right reverend the Catholic Bishop of Isauropolis in lieu of paying for the 100 additional copies of this part of the work; and in reply to state, that under the representation now made, the Honorable the President in Council is prepared to authorize the expenditure of a sum not exceeding 1,500 rupees for the publication of 1,300 copies of the Vocabulary of the Anamitan language which has been prepared at the suggestion of Government with the map, &c, in lieu of taking the 100 additional copies as originally proposed.

I am, &c.

Council Chamber, }
17th January, 1838. }

H. T. PRINSEP, *Secy. to Govt.*

BÁBU RAM COMUL SENA communicated an offer, from Maulavi HAFIZ QABIR, of 1,200 rupees for the imperfect set of the *Fatáwa Alemgiri*. Referred to the Committee of Papers.

The Librarian submitted a statement of the books bound and repaired from November to January, in all 146 volumes; a daftarie's bill for Rs. 63 2 was passed.

The following extract of a letter from Professor WILSON, to the Secretary, dated 5th September, 1837, having been read:—

"We have in the library at the East India House an excellent bust of the late Mr. COLEBROOKE by Chantrey, a copy of which the artist would furnish for £60. It would form a valuable addition to your Society's statuary if 600 rupees could be raised for the purpose."

Proposed by the Secretary seconded by Captain SANDERS and carried unanimously;—



That, in order to profit by Professor WILSON's most welcome suggestion, and to obtain a lasting memorial of HENRY THOMAS COLEBROOKE to be placed in the Society's library, a subscription be set on foot among members of the Society in Calcutta and in the Mufasal.

It was further resolved that should the sum raised be more than sufficient to cover the expence contemplated, Mr. WILSON should be requested to procure, if possible, a similar memorial of Sir WILLIAM JONES, if there be any monument in England from which a good bust can be copied. And as the sum raised for Dr. MILL's portrait was also sufficient to pay for a bust by Chantrey, it was determined to modify the former resolution, and to request Dr. MILL also to sit to this eminent sculptor; by which means the Society will become possessed of four monuments of its most eminent orientalists, equally ornamental and durable.

Antiquities.

Mr. D. LISTON forwarded facsimiles (or rather impressions) of the inscription on the *Kuhaon* and *Bágelpur* pillars in the *Gorakhpur* district.

[Published in the present Journal.]

Mr. J. H. BATTEN presented an impression of the inscription on the temple of *Bágheswar* (*Vyágreswara*) in *Kemaon*, with drawings of the old and modern temples there, and a *Nágari* report drawn up by the priests of the place, of the princes who formerly reigned in that district.

Capt. J. CAMPBELL, Asst. to the Commissioner, *Ganjam*, at the request of Mr. WILKINSON sent for presentation the *Gumsur* copperplate grants of which a lithograph and translation were published in the Journal, vol. VI.

Mr. L. WILKINSON, presented for deposit in the Society's museum the *Piplianagar* plates, translated by him in the Journal for July 1836.

The Secretary exhibited to the members present a number of Bactrian and Indo-Scythic coins collected by Captain BURNES at *Cabul* and from *Bokhara*.

Among them were three Indo-Sassanians dug up at the former place, which had enabled him to interpret the Sanskrit marginal legend of two similar coins found at *Manikyála*, by Genl. VENTURA. It proves to be a translation of the usual Pehlevi titles of the Persian monarchs of the Sassanian dynasty.

Mr. M. KITTOE presented for the museum, 6 arrows used by the Paiks in the *Kattak* hills:—a Kund arrow from *Boad*; a Sikh spear.

Also, a small stone with inscription from the fort of *Kattak*, and a facsimile of another from the same place.

Various weapons used in *Nipál* were presented by Mr. B. H. HODGSON.

Physical.

Fourteen boxes of geological specimens collected in the *Shekawatí* country by Mr. EDMUND DEAN, were presented in his name to the museum; with a descriptive catalogue.

Mr. B. H. HODGSON presented a variety of the fishes of the sub-Himálayan streams preserved in spirits. Dr. McCLELLAND had examined and named these, and made drawings of such as were new.

List of Fishes presented to the Asiatic Society, by B. H. HODGSON, Esq.

- 1 Cyprinus mola, HAM. Figured Ganget. Fishes.
- 2 Cyprinus calbosus, ditto ditto ditto.
- 3 Cyprinus bacaila, ditto ditto ditto.
- 4 Cyprinus putitora.
- 5 Cyprinus shacra, and
- 6 Cyprinus chagunio of HAMILTON, unfigured and not received in consequence by the naturalists of Europe.
- 7 Cyprinus, a new species.
- 8 Cyprinus, probably new.
- 9 Achirus new?
- 10 Bola coitor, HAM. Figured and described in HAM. Gang. Fishes.
- 11 Pimelodus tengana, ditto ditto.



- 12 Chauda nama? HAM. Figured and described in HAM. Gang. Fishes.
- 13 Clupanodon cortius, ditto ditto.
- 14 Silurus canio, ditto ditto.
- 15 Pimelodus aor, ditto ditto.
- 16 Esox cancella, ditto ditto.
- 17 Coius cobojus, ditto ditto.
- 18 Silurus boalis, ditto ditto.
- 19 Gmnotus notopterus auctorum.
- 20 Macrogathus armatus, HAM. Figured and described in Gang. Fishes.

Various specimens of butterflies and insects were presented by Mr. C. HARVEY.

A stuffed parrot, by Mr. X. NICOLAS. A black curlew by Dr. S. EVANS. A porcupine stuffed and mounted by Mr. BOUCHEZ. The Skeleton of a *Gosamp* or guana was presented by Mr. M. MASTERS.

A large collection of birds was received from Captain PEMBERTON for deposit until the return of his expedition.

The following extracts from a private letter dated the 1st and 11th instant, will interest those who are acquainted with the objects of the embassy :

"I yesterday crossed the frontier line and entered the *Bhotan* territory, after waiting for several days to afford my friends time to make their arrangements for the conveyance of our baggage and the collection of supplies ; but I found them quite as far advanced after a week's nominal labour as before their exertions commenced. I have opened communication with the *Dewangiri* raja who commands the *Buxa* *Dovar* pass by which I shall enter the *Bhotan* hills, and he has written to me in very friendly terms, promising a great deal when we meet. His residence is on the summit of the first range of mountains overlooking the *Assam* valley. I ought to have mentioned that this pass though called *Buxa* is not the *Dovar* by which TURNER travelled in 1783, but another bearing the same name, a little to the westward of north of *Gowchatty*. I have just been shewing some *Bhoteahs* the plates in TURNER with which they are delighted, and recognized the different places immediately. They are quite astonished at the extent of our knowledge.

Dewangiri, Bhotan hills, January, 11, 1838.

Lat. 26° 50' 52" Long. 91° 37' 17". Height above the sea, 2,150 feet.

We left *Hazdragong* on the 2nd for *Goorgam* a small village at the foot of the hills where we halted for the night, and on the following morning entered the defiles of the hills, and travelled nearly the whole day over the rocky bed of the *Durung* nullah whose source is among the heights which immediately overhang *Dewangiri* on the east. The stream is now scarcely more than ankle-deep, but in the rains it forms a rapid and impracticable torrent, rushing with immense velocity over its rocky bed. Boulders of granite, masses of hornblende-slate, micaceous-slate, brown and ochre-colored sandstones, are the principal rocks found in this torrent, and the heights on either side which rise almost perpendicularly from the stream, appear to be composed of a coarse granite which is rapidly decomposing. In some instances, the whole hill is a conglomerate formed of angular fragments of the different varieties of rock already enumerated, the fragments of pre-existing formations. These inferior heights when viewed from the plains present a very striking contrast to the more massive ranges of which they form an advanced barrier. Their sides are almost entirely bare of vegetation : slips are seen in every direction, having large white patches, which have a very singular and striking effect when contrasted with the dark foliage of the more lofty ranges beyond them. The peaks, some of which are from 500 to 800 feet high, rise very precipitously from the ridges on which they rest presenting all the characteristics of primitive rocks.

The ascent from the foot of the hill on which *Dewangiri* stands commences about half a mile below the village and is rather precipitous, but presents nothing like the difficulties which I have frequently experienced in my former rambles. I was met by a deputation from the raja with ponies and mules to convey us to the encampment, and being mounted on the favourite hybrid of royalty, I committed myself to the guidance of a stout limbed *Bhoteah* who led it by a halter. The ascent was accomplished by a succession of rushes : the guide stopping at every ten paces to take breath, and then hallooing to the animal made a second rush and we at length reached the summit with very little apparent distress to the powerful mule on which I was mounted. During the whole of this ascent, I sat perfectly secure between the well raised kante and pummel of the *Bhoteah* saddle, without even finding it necessary to touch the bridle. I was closely followed by an officer of some rank who must have ridden at least 15 stone, and he was conveyed up this



ascent with apparent ease by a little mule scarcely more than 11 hands high, one man leading the animal and one on each side supporting the back of the compound of silk, good humour, dirt and rank, on the little animal.

On the 5th, we paid our respects to the rāja and were received with all the state he could display on the occasion. He is a fine looking man of about 55 years of age with a strictly Mongolian countenance (that is superfluity of cheek bone and paucity of beard), he received us in the southern room of the second floor of a tolerably well built stone house, the ascent to which was by a plank notched into steps of such inadequate width that it is a service of no small danger to reach the presence by such devious ways. We found the rāja seated on a well-raised cushion with a colossal statue in front of him which I have since heard is intended to represent any one of the ten thousand dharmas who have been amusing themselves for the last eighteen centuries by periodical flights from defunct carcasses into living children. Every thing was conducted throughout this visit with a degree of polite urbanity which would hardly have been expected from a nation whom we have been accustomed to regard as so low in the scale of civilization; there was some distrust at first, but it has now evidently worn off, and we have established a mutual understanding which will, I trust, be productive of much eventual good.

I am just now about to pay the rāja a friendly visit, and intend taking CSOMA DE KOROS' Tibetan Grammar and Dictionary to shew him. As yet we are hardly sufficiently far north to obtain any very accurate information regarding the countries in that direction, but I have seen one or two very intelligent men who confidently affirm that the *Eroo Chouenboo*, or river which flows between *Teshoo Loomboo* and *Hlassa*, is the *Burhampooter* of *Assam*, and that just before turning to the south it receives a river from the eastward which flows into it from *China*, which country they designate *Karree*, not *Geanna* as TURNER represents, this latter term being applied apparently to eastern Tartary. We expect to leave this in a day or two more, and hope to reach *Punakha* in twenty days. The general direction of our marches will be about northwest, and on the seventh day we shall enter a snowy region from which we shall not emerge until the eleventh march. The most interesting portion of our journey is therefore still before us, and thus far I have succeeded in having my instruments conveyed in safety. I have two excellent barometers from which my estimate of altitudes are deduced, and as I have frequently tested them in the course of journeys previously made by comparison with heights I examined trigonometrically, I know they are to be depended upon. My observations for latitude and time are taken with a Troughton's reflecting circle on a balanced stand, and my chronometer is one by BARRAUD which I purchased from Mr. GRAY just before leaving Calcutta. Its rate is 1" per diem gaining, and I have deduced the longitude of this place from *Gowhatty* by it. It is an excellent time-keeper and fully sustains the character Mr. GRAY gave it when it was purchased. We are enclosed on the north by peaks which must rise from two to four thousand feet above our present level; but vegetation flourishes exuberantly to the very summits of all the ranges visible, and I long for the sight of more rugged scenery. I have sent you another dispatch of birds, of which I enclose a list."

Mr. G. EVANS submitted to the meeting the Prospectus of a work by Capt. HARRIS of the Bombay Engineers, comprising twenty-eight paintings of the south African game quadrupeds with appropriate landscape, collected during a hunting expedition into the interior of Africa, wherein he had penetrated to the tropic of capricorn. Resolved, that members should be invited to patronize the work.

[See the Prospectus and list of Subscribers on the cover of the present Journal.]

The following bulletin of proceedings in the *Nerbadda* fossil field was extracted from a letter from Dr. SPILSBURY dated 15th January.

Major OUSELEY is very hard at work bringing out some unknown animal's head, the teeth running like the radii of a circle, 18 inches long. You will hereafter receive it along with a tusk that we cannot make out. The matrix is so very hard, that it requires skill as well as labor to get on. It was first trusted to a native and nearly spoilt. I chiselled out a splendid elephant's head at Saugor; there is also one here. As I have already sent you one, these are destined for different places. I hope you got the box of shells from WALKER, I have drawings of all the varieties we have yet discovered which shall be sent you by and bye with an account of the sites, also some new fossil sites, which I shall visit.

Colonel LLOYD forwarded meteorological Journals from *Darjiling* for October and November to complete the year's observations by Dr. CHAPMAN.

Meteorological Register, kept at the Assay Office, Calcutta, for the Month of January, 1838.

Day of the Month.	Observations at 10 A. M.							Calculated Humidity.			Observations at 4 P. M.							Temperature of water.		Rain.		Wind.		Weather.						
	Old Stand. Barometer at 32°.	New Stand. Barometer reduced.	Thermometer in air.	Depression of wet-bulb.	Do. by Les. Hygro.	Dew-point.	Hair Hygrometer.	Centesimal of tension of vapour by wet-bulb.	Do. by hair hygrom.	Ditto by dew-point.	Old Stand. Barometer at 32°.	New Stand. Barometer reduced.	Thermometer in air.	Depression of wet-bulb.	Do. by Les. Hygro.	Dew-point.	Hair Hygrometer.	Centesimal of tension of vapour by wet-bulb.	Do. by hair hygrom.	Ditto by dew-point.	River.	Well.	On the ground.	At elevation 45 feet.	10 A. M.	4 P. M.	Forenoon.	Afternoon.		
1	30,040	30,004	63.8	10.6	9.0		73	45	47		29,989	29,957	74.0	14.2	10.0		68	34	41							n. w.	n. w.	clear.	clear.	
2	30,028	29,997	65.5	8.9			76	50	52		30,002	29,967	73.3	16.0	13.3		58	25	29							N. W.	N. W.	do	do	
3	30,017	29,983	65.1	9.0	8.3		76	49	52		30,012	29,977	71.9	15.3	12.3		62	27	34							N. W.	N. W.	do	do	
4	30,075	30,042	64.5	7.7	6.2	49.5	79	55	57	60	30,085	30,051	71.9	14.9	11.6	48.5	69	30	36							n.	n.	do	do	
5	30,073	30,040	64.3	7.7	6.2	49.5	79	55	57	60	30,085	30,051	71.9	14.9	11.6	48.5	69	30	36							N. W.	N. W.	do	do	
6	30,011	30,001	65.1	7.3	7.0	53.3	83	59	63	64	30,077	30,043	73.7	12.0	13.5	48.0	64	42	46							S. W.	S. W.	do	do	
7	30,055	30,020	69.0	11.3	10.1		74	41	49		30,031	30,000	75.9	16.6			62	27	34							S. e.	S. e.	hazy	clear.	
8	30,034	30,004	65.4	1.7	1.7	46.0	97	50	34		30,039	30,000	75.1	14.5	11.3		64	34	36							S. o.	N.	do	do	
9	30,010	30,000	67.2	8.7			77	58	54	48	30,004	30,000	74.2	14.5	12.4		65	32	37							n.	N. W.	clear	clear	
10	30,012	30,000	65.4	9.0			74	50	49		30,007	30,000	73.8	13.1	10.4	51.0	63	30	42							W.	W.	do	do	
11	30,012	30,000	65.4	9.0			74	50	49		30,007	30,000	73.8	13.1	10.4	49.0	63	40	45							n. w.	n. w.	clear	clear	
12	30,006	30,000	66.6	8.4	5.7		76	52	52		30,004	30,000	72.6	12.6	12.7		65	32	37							W. W.	W. W.	do	do	
13	30,000	30,000	66.5	8.8	7.5		78	50	56		30,003	30,000	73.8	13.6	12.3		70	34	44							o. w.	W.	do	do	
14	30,014	30,001	65.8	6.8	7.0	48.0	80	62	59	56	30,014	30,001	74.4	13.8	13.5	47.0	64	35	36							o. w.	n. w.	do	do	
15	30,053	30,022	68.0	10.2	9.5	49.0	72	45	46	53	30,060	30,029	75.7	15.9	15.9	45.0	58	29	29							o. w.	W. S. w.	do	do	
16	30,030	30,024	68.9	8.9	7.6		82	52	63		30,016	30,010	75.9	17.2	15.4	47.0	60	25	31							S. W.	S. w.	do	do	
17	29,925	29,919	71.5	7.7	6.8		86	60	70	38	30,032	30,026	78.5	11.8	9.7		76	47	52							SSW.	SS. w.	do	do	
18	30,076	30,037	70.8	13.6	12.7	42.0	65	34	37		30,072	30,037	74.3	16.6	15.0	43.0	56	25	27							n. e.	n. e.	do	do	
19	30,132	30,104	67.4	12.9	12.5	40.0	63	32	35	39	30,090	30,062	71.8	14.0	14.5	44.5	62	32	34							n.	n.	do	clear.	
20	30,092	30,071	64.8	9.8	9.6	42.0	71	45	47		30,093	30,072	74.4	14.7	15.6	41.5	50	32	30							n. w.	n. w.	do	do	
21	30,040	30,018	66.2	9.2	8.8	46.0	75	50	51	50	30,039	30,015	74.7	18.2	15.2	43.0	59	32	30							n. o.	n. w.	do	do	
22	30,080	30,046	67.1	10.6	10.2	43.0	71	42	45	44	30,081	30,047	74.3	18.2	15.2	42.0	59	32	30							n. w.	n. w.	do	do	
23	30,080	30,046	67.1	10.6	10.2	43.0	71	42	45	44	30,081	30,047	74.3	18.2	15.2	42.0	59	32	30							n. w.	n. w.	do	do	
24	30,080	30,046	67.1	10.6	10.2	43.0	71	42	45	44	30,081	30,047	74.3	18.2	15.2	42.0	59	32	30							N. W.	n. w.	cirri	do	
25	30,097	30,076	66.3	9.2	8.2	48.0	77	50	54	55	30,091	30,070	74.5	16.6	14.4	41.5	61	25	33							n. w.	n. w.	clear	clear	
26	30,075	30,053	66.7	10.9	10.0	42.0	70	41	44	44	30,076	30,054	74.5	16.6	14.4	41.5	61	25	33							n. w.	n. w.	do	do	
27	30,050	30,024	66.9	10.3	9.7	45.0	73	45	48	48	30,050	30,024	74.7	16.6	14.4	41.5	61	25	33							n. w.	n. w.	clear	do	
28	30,001	29,951	68.9	11.2	9.4	47.0	76	42	52	48	30,001	29,951	74.7	16.6	14.4	41.5	61	25	33							o. w.	S. w.	do	do	
29	30,065	30,036	72.3	2.5	8.5		78	86	56		30,060	30,032	80.4	18.6	14.5	46.0	60	24	31							W.	W.	hazy	hazy	
30	30,064	30,035	72.4	5.9	4.4	59.0	91	69	59		30,060	30,032	80.4	18.6	14.5	46.0	60	24	31							h. w.	o.	foggy	do	
31	30,041	30,009	70.1	11.6	10.5	47.0	71	41	45	46	30,041	30,009	75.5	16.9	12.5	43.0	56	25	29							h. w.	W.	cirri	clear.	
Mean.	30,020	29,993	67.5	9.0	8.4	46.5	76	51	53	49	29,903	29,857	74.5	15.2	13.2	45.1	63	30	35										73.3	73.3

A fresh opportunity of comparing my Barometers with the Standard of the Royal Society at Somerset House was kindly furnished by Captain HENNING of the Windsor, who brought with him a new and excellent instrument by *NEWMAN*, previously compared at home. It stood .042 lower than the Roy. Soc. Bar. and on 24 observations .048 higher than my new standard, which would thus seem to be .090 too low—a result I cannot put confidence in.—J. P.



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I.—*Account of the expedition of CHACH (Chach) extracted from the Chach Nameh, and extracts from the Tóhfát ul Khwán. By Ensign POSTANS.*

The original *Chach Nameh*, from which the following is taken, is the only known history of *Sindh*, authentic or otherwise, which affords any information on the state of that country, previous to its conquest by MUHAMMAD BIN CA'SIM, under the Khalif WALLID, in the year of the Haj. 92. It exists in the form of a Persian translation from the Arabic, in which it was originally written, by ALI BIN AHMED BIN ABU-BAKR KU'FIE, a resident of *Ooch*; but it is so defective, that much on the following, and other interesting subjects connected with the state of the country at that period, has been lost; the succeeding account, is all that can be given of an expedition led by the brahman CHACH when he usurped the sovereignty of *Sindh*, about the year 20 of the Hejira.

CHACH being firmly seated upon the throne of *Sindh*, and having appointed his brother as his deputy, inquired of BU'DHEMA'N, the minister of the late king, as to the divisions and extent of the empire, seeing that it was his intention to make a tour of his dominions, for the purpose of forming still stronger alliances with those chiefs who were friendly to his rule; whilst he punished, and subdued to his obedience, the discontented and seditious. BU'DHEMA'N informed him, that formerly the country had been divided into four great divisions, each having its ruler who acknowledged the supremacy of the sovereign; in which state it came to SA'HARS BIN DIWAIJ*, who was overthrown,

* *Diwaij* seems a corruption of *dwija*, 'the brahman:' and *Sahur's* resembles much the genitive *sáhara* of our Saurashtra coins, of whom the first is a *swámi putra* or son of a brahman; but the date seems too recent. See Vol. VI. p. 385.—ED.

and killed by the Persians, under NÍMROZ; it then descended to SA'HASSÍ, a wise and virtuous prince, who made great exertions to improve the country, and who added much to the wealth of the public treasury; he observed, "Oh, CHACH, it is now in your possession, where may it long remain; Go therefore and see the country, for by so doing, and personally inquiring into its affairs, the dominion and power over this vast territory will be fully secured to you." CHACH approved of this advice, and having prepared a large force, set out to go towards *Hindustan*, which was close to his territories. After many marches he arrived at *Hissarpágeh*, on the southern shore of the river *Bíás*; the governor of that fort, MALAK BAMEA'H, opposed his progress; engagements ensued; MALAK BAMEA'H was defeated, and fled to the fort where he entrenched himself. CHACH staid at this place some time, until, his supplies failing, he made a night march, and arrived at *Iskúnder*, which was a fortified place, and encamped near the city. Now in that fort was a person named MATYEH, who was well disposed towards CHACH, and the most influential man in the place. CHACH sent messengers to him, promising him the fort and the government of that part of the country, if he would contrive either to destroy, or imprison MALAK BAMEA'H, the governor of *Iskúnder*; and in order to ratify his promise, he delivered written agreements to MATYEH to that effect. This latter acceded to these conditions, and seizing an opportunity slew MALAK BAMEA'H by night, and brought his head to CHACH, who made MATYEH governor of the country, whilst the great people of the place paid visits, and brought presents to CHACH, acknowledging his authority. From this place, he proceeded towards the country of *Máltan*. Now in the city of *Máltan*, was a governor named BHU'JÍ'RAH, of the family of SA'HASSÍ the late king; when this man heard of the arrival of CHACH on the confines of his dominions, he came with a large force to the edge of the river *Ráwí*; his nephew SIHU'D, was governor of the fort of *Sukeh* to the eastward of *Máltan*, and his cousin ASSI'N came with a large force to the edge of the *Bíás*, where he encamped for three months, until the water decreased, when he forded it, and came to join SIHU'D, at the fort of *Sukeh*, which place CHACH besieged. The besieged held out for some time, until they became distressed, and much slaughter ensued on both sides. SIHU'D then fled towards *Máltan*, and made a stand on the bank of the *Ráwí*; CHACH advanced upon *Máltan*, and BHU'JÍ'RAH prepared his forces and war elephants to oppose him. After much fighting and slaughter, BHU'JÍ'RAH was defeated, and fled for refuge to the fort, from whence he dispatched emissaries to *Cashmere*, telling the governors of that place, that the

brahman CHACH, with a powerful army was in the country, and that there would be no bounds to his conquests, unless they sent assistance to enable him to repel the invader. The messengers from *Cashmere* returned with the following answer: "The governor of this country is just dead, and his son is a minor: the army so far from being disposed to obey him, are rather inclined to be mutinous: we must first settle the affairs of our own state, before we offer to render you the assistance you require." On receiving this reply, BHU'JIRAH sued to CHACH for safety for himself, his family, and the whole garrison, when he promised to evacuate the place, and depart from the country: this was acceded to. The fort and whole country of *Múltán*, were taken possession of by CHACH, and BHU'JIRAH departed to *Cashmere*. After this acquisition of territory, CHACH proceeded to the temple, where he prostrated himself before his gods, and made his oblations: after having appointed a *Thákur* as his deputy to govern *Múltán*, and the governors of *Malud*, *Karud*, and *Ishpahar*, having proffered their allegiance, CHACH proceeded towards *Cashmere*, to the boundaries of which country he arrived without any opposition; because, when God raises a man to power, he facilitates all his difficulties, and gratifies all his wishes. So CHACH proceeded from stage to stage until he arrived at the fort of *Shah Kúlhar*, higher up than *Kísa*, and which is situated upon the confines of *Cashmere*; here he halted for one month. Some of the neighbouring chiefs were refractory, whilst others acknowledged obedience: he formed new alliances, and strengthened old ones, with many of the nobles, and when affairs were settled, he sent for two young trees, one a willow and the other a fir; these he planted on the borders of the country of *Cashmere*, on the edge of the river which is called *Panj Mahiyát*, near the hills of *Cashmere* whence it rises; he remained here until the branches of the trees met, and then decreed, that they should be considered as the boundaries of the two territories, on that side was to belong to *Cashmere*, on this to *Sindh*. After this he returned to *Alor*, where he remained for one year. Having now completely settled the affairs of the country to the eastward, CHACH observed to his minister BU'DHEMA'N, that it would be necessary to make a journey to the southward and westward; whereupon he proceeded to the fort of *Búdhapur* and *Secústán*, the governor of which latter place was named MATTEH. From a place called *Dahtamat* (which is a boundary between *Sammah* and *Alor*) he went to *Búdyeh*, whose governor was the son of KOTUD. The capital of the country was *Kakaráj*, the residents of which are called *Sawís*. CHACH attacked them, and took the fort. KA'KEH BIN KA'KEH came to CHACH, and asked for safety for his father

and family, promising to pay tribute and be obedient. CHACH then proceeded towards *Secistan*. MATTEH the governor came out to battle, but was defeated and fled to the fort, where he was besieged. After a week, CHACH took the place, and reinstating MATTEH as the governor, left agents of his own there for its greater security. Here he staid for some days, until all the affairs of the country being settled, he sent messengers to *Brahmanábdd*, to the governor AKHAM LOHA'NA', who had also charge of the provinces of *Sakeh*, *Sammah* and *Suhuteh*, to bring him to obedience. The spies who had been stationed on the road, which is a few days' journey from *Makran*, intercepted a letter which AKHAM had written to MATTEH wherein it was thus written: "Your letters have arrived: whilst I live I will prevent any person from encroaching upon my dominions. Who is this CHACH that I should fear him? a thousand such have come and departed, who is not a king, but a brahman; you are free to travel in my dominions, from *Brahmanábád* to the sea at *Diwul*, no one shall molest you, nay, I will assist and protect you, for I am powerful." CHACH on reading this, wrote to AKHAM thus: "You are proud of your power and bravery, but be not too confident; it is true that the countries I possess were not mine by inheritance, but they are the gifts of God who protects me, and whose assistance I alone supplicate. It is in this way that I have always overthrown my enemies."

CHACH marched to *Brahmanábád*. AKHAM LOHA'NA was not at that time there, but in another part of his dominions; but hearing of the arrival of CHACH, he hastened to oppose him. After a great battle and much slaughter AKHAM was defeated and besieged in his own fort.

The following are from the *Tufat ul Khwán*.

Methods of deciding the innocence or guilt of persons accused of misdemeanours.

1st. It is a practice with these people (although a foolish one*), when any person is accused of theft, to give him the trial by fire: if he passes through the flames unhurt, they conclude him innocent.

2nd. Another plan is, to place an iron spade heated to a white heat

* NOTE.—These, or practices equally ridiculous, are at the present day common in *Sindh*. Since writing the above, I have been informed by a most intelligent native (SAYAD AZAMUDDIN) for some time resident at *Vikhar*, as British agent at the mouths of the *Indus*; that the most approved method at present in use amongst these people, is for the accused to dip himself clothed in the river, from whence if he emerges with his body dry, he is beyond doubt innocent of the crime laid to his charge! Truly, such methods of administering justice must leave the accused but a sorry chance of escape; whether innocent or guilty.



upon the palm of the hand; some green leaves are tied together with raw silk, and placed upon the heated iron: if the accused be innocent, the leaves remain unburnt and the hand uninjured; (as has been frequently observed) but if guilty, both the leaves and hand are burnt. For example, a certain woman stole a pair of *siwáreh's*, (kind of ornament) from another woman, and denied the theft, whereupon, they agreed to decide the question by means of the heated spade. The accused placed the articles stolen in a basket, covering over and concealing them with cotton, and previously to undergoing the ordeal, gave the same to the owner of the *siwáreh's*: then, fearlessly lifting the spade, she returned it to the ground unhurt, although the heat was so great, that it scorched all the surrounding earth. The accuser, enraged at seeing the woman, whom she knew to be guilty, escape without injury, threw down the basket, when the ornaments rolled out, and the truth became apparent.

3rd. They sink the foot of a post in deep water: the accused is directed to dive to the bottom of the post; at the moment that he does so, an arrow is thrown, and a person dispatched to bring it; the post is then moved, if the accused be guilty, he rises to the surface, but if innocent, he is enabled to stay in the water.

Magic and Divination.

These people are great magicians; one woman will charm away the butter from the curds of another, and add the quantity to her own. For instance*, I was once the guest of a woman in a village who had prepared her curds for butter, when under pretence of asking for fire, she proceeded to the house of a neighbour, whose curds she saw were also ready; my hostess returned, and in a short time by dint of powerful charms, produced as much butter from the produce of one cow, (which was all she possessed) as could scarcely have been produced by ten cows. Their best method of divination is by means of the blade-bone of a goat. The following once occurred.

A party of hillmen being pursued by enemies, left their stronghold, and fled to the plains; they had amongst their number, a *Máneh Sang*, (so this description of diviners are called). On the road they found the blade-bone of a goat, and requested the diviner to tell them how far their pursuers were behind. He looked at the bone and reported that they were close upon them. He was then directed to point out the best means of escape; he ordered them to sprinkle the contents of their

* This is quoted from the author of the *Tohfat*, who speaks in the first person.

mussocks upon the ground, and pass over it; they did so, and proceeded on their journey. In a short time, the other party arrived, having also with them a *Máneh Sang*, who, looking at the water and the direction the pursued had taken, told his companions that there was no use in proceeding further, as the enemy had crossed the (water), they accordingly gave up the pursuit.

Tracking footsteps, and Omens.

These people are wonderfully expert in the art of tracking footsteps; they can distinguish those of friends from strangers, old from young, nor do they lose the track over any kind of ground. Some can also divine from the noise of birds, particularly from that of the woodcock or quail, both of which are birds of great omen. I was once with a person who said to me, come along quickly, for, from the omens of the birds I know that guests have arrived at my house, as also, that a certain person is dead. It proved to be as he had predicted.

Stories.

No. 1. In the time of OMAR SUMRAH, two extraordinary circumstances occurred, which I will relate: 1st, a beautiful girl named MÁHRU'Í, who resided at *Talhár*, was betrothed by her family to a person named PANU', but afterwards given in marriage to another. PANU' enraged at what had occurred, determined upon revenge, and with this intent, reported to the king OMAR, that MAHRU'T' was exceedingly beautiful, and fit only to be an inmate of his harem. OMAR on hearing this, disguised himself, and mounting a swift camel proceeded in search of the beauty; he found her, and being enraptured with her charms, seized the first opportunity of carrying her away. MÁHRU'Í's virtue however was proof against all the king's entreaties, and after a year had passed in vain endeavours to gratify his desires, he sent for the husband, and resigned her again to his care. Notwithstanding OMAR's assurances to the contrary, the man's mind was infected with doubts as to his wife's purity, nor did the taunts he underwent from his tribe, on the subject of her residence with the king, diminish these suspicions; in short, he ill treated MÁHRU'Í, and did not scruple openly to curse OMAR, as the cause of his misfortune and disgrace. These circumstances, reaching the ear of the king, in a transport of rage he headed a body of troops, determined to inflict summary punishment upon the whole of that tribe; but MÁHRU'Í interceded to dissuade him from so cruel and unjust a proceeding, pointing out, that the fault was his own, in keeping a stranger's wife so long in his own house. Whilst in order to satisfy her husband's doubts, and set his mind at rest, she underwent the trial by fire, and coming out unscathed, proved to



him and all the tribe, that she was spotless. They then lived together in the bonds of affection.

Súsi and Panún.

2. In the city of *Bahanpurweh*, resided a rich man, whose wife after remaining for many years childless, brought forth a daughter; the father's happiness at the event was very great, but on consulting the astrologers as to the future fate of the child, they predicted, that she would marry one of the Muhammadan persuasion. In order to prevent the disgrace which must attend such a connection, the father determined to destroy the infant; and for this purpose, placed it in a box which he threw into the river. By chance, it floated to the city of *Bahanpore*, and was picked up by a man in the employ of a dhobí of that place. He took it to his master who opened it and found the child alive. Being without children himself, he adopted the girl as his own. In time *Su'sí'*, (for so she was called,) became so renowned for her beauty, that whenever she went abroad, she was followed by a large concourse of the people of that city. Now it happened, that a large caravan of merchants from *Kísh* and *Makrán* halted at *Bahanpore*, and some of these, having seen the girl, on their return, reported her beauty to *PANU'N*, the son of the governor of *Kísh*. He became enamoured of her description, and disguising himself as a merchant, travelled with the next caravan to the city of *Bahanpore*, for the purpose of satisfying himself as to the truth of the reports he had heard. The better to carry his purpose into execution, he entered the service of the dhobí, and soon contrived to see *Su'sí'*, whose real charms exceeded all description. In a short time, he made her acquainted with his passion, which she returned; and by the consent of the dhobí, they were married.

When the intelligence of this reached *PANU'N*'s father, he was annoyed at the connection which his son had formed, and dispatched other two of his sons to bring their brother back. They arrived at *Bahanpore*, and took up their residence near the house of the dhobi where their brother lived, until watching an opportunity, they one night seized *PANU'N*, and placing him upon a swift camel, returned with him to their father. The grief of *Su'sí'* on discovering the abduction of her husband knew no bounds; she determined to follow him, and took the road to *Kísh*. After travelling for about 40 kos from the city, overcome with thirst and fatigue, she fell exhausted to the ground, but in so doing, her foot struck a stone, and immediately there gushed forth a spring of limpid water, with which she quenched her thirst; this same spring yet remains, nor was it ever known to become dry, even in seasons of great drought, when all the



tanks, and other springs in the country, have been parched up. *SU'SI'*, in commemoration of the goodness of God in thus miraculously affording her assistance, planted a sprig of the tree from which henna is procured, on the edge of the spring. The tree is to be seen there at the present day.

Proceeding onwards towards the hills, she was again distressed with fatigue and thirst, in which situation a shepherd observing her, and being struck with her extreme beauty, advanced for the purpose of offering her violence; by entreaty however, she prevailed over him sufficiently, to induce him to desist from his evil designs, until he had first satisfied the thirst with which she was tormented. Whilst the shepherd returned to procure her some milk, *SU'SI'* prayed to the almighty to release her from her manifold calamities; her supplications were answered, the hill whereon she stood opened, and she entered the fissure which closed after her, leaving only the edge of her garment visible, as a proof to the rest of mankind of the power of God, and to direct her husband *PANU'N*, to the spot. When the shepherd returned, and saw what had happened, he reproached himself bitterly as the cause of the calamity, and piled a few stones together in the shape of a tomb, as a memorial of his grief. In the mean time, *PANU'N* continued inconsolable at the separation from his beloved wife, and his father seeing that he was determined rather to die than live without her, became apprehensive for his life, and dispatched him in charge of his brothers, to seek *SU'SI'*. When they arrived at the spot in the hills, and were informed by the shepherd of the circumstances attending *SU'SI'*'s death, they were overcome with fear and astonishment. *PANU'N*, under pretence of paying his devotions at the tomb of his wife, withdrew from his brothers, when he supplicated the almighty to join him in death with his beloved *SU'SI'*; the earth again opened, and he was swallowed up also. The brothers returned to their father, and reported what had occurred. This is a story well known in *Sindh*, and *MIR MASU'N BAKERIE*, the author of the 2nd *Chach Nameh*, has composed some verses upon it, under the title of *Hassan and Naz**.

3. It is related, that during the reign of a king of *Cutch* named *LAKEH*, there lived a jogi who was wonderfully skilled in the various properties of herbs, and who had for years been occupied in searching for a peculiar kind of grass, the roots of which, if burnt and a man

* NOTE.—There can be little doubt, that this, as well as the succeeding legends, relative to the destruction of the cities *Alor* and *Bráhmanábád*, have their origin in some convulsion of nature.



thrown into the same fire, the body of the person so burnt would become gold. Any of his limbs might afterwards be taken away without the body sustaining any diminution for the parts so taken, would always restore themselves. It happened one day, that this jogí whilst following a flock of goats, observed a red goat eating of the very grass he was so anxious to procure. He immediately rooted it up, and desired the shepherd who was near, to assist him in procuring firewood. When he had collected the wood, and kindled a fire, into which the grass was thrown, the jogí, wishing to make the shepherd the victim of his avarice, under pretence of its being necessary, desired him to make a few circuits round the fire. The man however suspecting foul play, was beforehand with him, and watching an opportunity, seized the jogí himself, and threw him into the fire where he left him to be consumed. The next day when he returned to the spot, great was his astonishment at beholding the golden figure of a man lying amongst the dying embers. He immediately chopped off one of the limbs, and hid it. The next day, he returned to take some more, when he found to his surprise, that another limb had replaced the one he had taken off. In short, in this way the shepherd soon become wealthy, and afterwards revealed the secret of his riches to the king *LAKEN*, who by the same means, accumulated so much gold, that every day, he was in the habit of giving 1,25,000 rupees, in alms to fakirs.

The country of Cutch taken possession of by the men of Sammáh.

Many of the men of *Sammáh* emigrated to *Cutch*, the ruler of which country treated them with kindness and consideration. After some time they represented that they had become a powerful and numerous tribe, able to support themselves without burthening the state, for which purpose they petitioned the government for a grant of land, which they pledged themselves to cultivate, and pay tribute and tax, like the other subjects of the country. The king of *Cutch* with great generosity, bestowed broad lands upon them, and also gave them 500 carts laden with grain, which they promised to repay with the produce of their agriculture. In the course of time, these people made themselves acquainted with the affairs of the country, and became ambitious to possess it. With this intent they formed a plot in the first instance to seize the capital, and residence of the king, which was as follows; they concealed armed men in their 500 carts, covering them over with grass, two men in each cart, and one as a driver. Under pretence of selling the grass, they were about to enter the fort, but seated in the porch of the gate, was a brahman, an astrologer, whose business it was to divine the intentions of all who entered the city, and who warned the door-keepers



of danger by telling them, he was sure flesh was concealed under the grass. These men would not believe him, but to prove the truth of his assertion, thrust their spears amongst the bundles of grass in the foremost carts. The *Summáhs* who were thus wounded, wiped the stain of the blood to prevent detection; the door-keepers were deceived, the brahman was taunted as a false diviner, and the whole of the carts passed into the city. In the night, the *Sammáhs* left their places of concealment, and took possession of the place, and of the whole country, the descendants of the *Summáhs*, are governors of *Cutch* to this day*.

Downfall of the Cities of Alor and Bráhmaábád.

DILU' RÁI was a tyrant, and his oppression and injustice caused the downfall of the cities of *Alor* and *Bráhmaábád*: as they are extraordinary circumstances, I will relate them. It was the practice with that monster of cruelty, to deprive every merchant who visited his city of half his property, and to seize by force the beautiful wives of his subjects, who were made to minister to his sensual gratifications. It happened that a very wealthy merchant by name, SIEF UL MULK, (some say, he was not a merchant, but a prince in disguise,) halted at *Alor* on his road to *Mecca*; he was also accompanied by his wife, a very beautiful woman: in those days, the waters of the river *Mehrán*, ran close by the city of *Alor*. Now when DILU' RÁI, heard of the riches of SIEF UL MULK, and of the beauty of his wife, he determined

* The city of *Goontree* or *Goatree*, one of the three remarkable ruins in *Cutch* and which the writer of this has visited, was the scene of this stratagem; as the strong current in this province agrees so nearly with what our author has written, it is herewith given in the words of Captain BURNES, whose paper on these and other subjects connected with *Cutch*, leave but little employment for the pens of others.

After describing the situation of the city, and the discord which exists amongst its inhabitants, the account says, "Discord having been once sown among them, their city fell into the hands of a body of *Sumas* or *Jharejas* through treachery. This tribe had migrated from *Kucho* in *Sindh* to *Cutch*, and tended herds of cattle in the neighbourhood of *Goontree*, supplied the city with grass, &c. and being encouraged by the differences among the Rajpoots, they secretly introduced armed men into the city, not exactly in the bowels of the wooden horse, but concealed during night in carts among the grass, and thus possessing themselves of *Goontree*, as the Greeks did of *Troy*, they forced the *Sands* to flee from *Cutch*, and they settled in *Bal* beyond *Lemree* in *Jhalawar*, where their posterity are said still to exist.

"It is in the mouth of every one, that the inhabitants of *Kattyédr* are from *Cutch*, which gives probability at least to this story.

"The chiefs of the tribe of *Suma*, which thus came into power, were *Mon* and *MUNAI* names of notoriety to this day, and often mentioned by the *Bhats* of the country in their songs; and it was the son of this *Mon*, who afterwards took *Káncot* in *Wágur*, and extended his rule over all *Cutch*, and converted the province into a petty kingdom in which it has ever since continued."



to rob him of both, and told him of his intention. The unfortunate merchant, petitioned for three days' grace, when he promised to accede to the tyrant's wishes in all things. SIEF UL MULK was a holy man, and that night prayed fervently to God and the prophet to assist him in his difficulties; he had a dream, wherein he was desired to collect together all the masons of the city of *Alor*, and cut a road through the neighbouring hills, sufficiently large to allow of the passage of a boat, by which means he should escape. The merchant reasoned within himself, that such could not possibly be the work of mortal hands, but since it was the will of the most high, he did as he was directed, and in one night the passage was completed; the river changed its course, and flowing through the new channel, enabled SIEF UL MULK, to escape with his wife and property, from the fangs of the tyrant DILU' RA'I. The river has ever since flowed in the new channel, and from its so doing, may be dated the downfall of the city of *Alor*, which rapidly fell into decay, and from being the capital city of the country, soon became a mere ruin. It is related, that SEIF UL MULK with his wife returned from *Mecca*, and took up his residence near *Sitaporu*, where he died after having two sons; his tomb, and those of his sons, are well known as places of pilgrimage.

Destruction of Bráhmañábád.

After the river had left the city of *Alor*, DILU' RA'I took up his residence at *Bráhmañábád*; he had a brother named CHOTAH, who by the blessing of God had early in life embraced Islamism, and knew the Korán by heart; his friends importuned him to marry, but he shewed a disinclination to do so, till one of them tauntingly observed; "Oh, he does not intend to marry a native of his own country, but will go to *Mecca*, and take unto himself the daughter of some wealthy Arab. Now it so happened, that CHOTAH at that time contemplated a journey to the holy city; this speech, and the importunity of his friends urged him to the measure, and he departed. During his residence at *Mecca*, as he was one day walking in the street, he observed a woman standing at the door of a house reading the korán aloud. CHOTAH stopped to listen to her, whereupon she asked him, why he did so? he said, "He also was anxious to read the korán, and that he would consider himself her slave, if she would instruct him. The woman replied, My teacher is the daughter of such a person, if you will disguise yourself as a woman and accompany me, I will introduce you to her." They went accordingly, and in his disguise, CHOTAH attended daily upon his instructress, who in addition to other accomplishments, was also skilled in astrology. On one occasion CHOTAH remarked to her, "You who are so well skilled in fore-

telling the destinies of others, are you acquainted with your own?" She said "Yes; and it is foretold that I shall become the wife of a native of *Sindh*, and you are the man." CHOTAH, finding his secret revealed, no longer continued his stolen visits, but making the girl's parents acquainted with his passion, was lawfully married to her, and returned to *Bráhma-nábád*, where he employed himself in trying to persuade DILU' RA'I, to abandon his evil courses, but without effect. The beauty of CHOTAH's wife (FATIMEH), reaching the ears of the tyrant, he determined to possess her and for this purpose sought an opportunity whilst his brother was from home to visit his wife. CHOTAH being informed of this, returned quickly and taking FATIMEH with him departed from the city, after venting maledictions upon it, and the tyrant who ruled there, prophesying that the place, and all who inhabited it, would be overthrown. Many believed his predictions, and fled; three nights afterwards, it was, with all its inhabitants, swallowed up; one single minaret alone remains as a warning to the rest of mankind.

Worship of Idols.

BIN CA'SIM after the taking of *Alor** entered the city, where he observed a number of people prostrating themselves before a temple. On inquiring, he found that they were worshipping idols; he entered the temple, where he saw the figure of a man on horseback so perfect, that he drew his sword to defend himself, but the bystanders told him to sheathe it again, as the figure he saw was not a man, but the resemblance of one and an object of adoration. Upon this, BIN CA'SIM advanced to the figure, and the better to prove to these people the absurdity of their religion, drew one of the gauntlets† from the hands of the idol, and observing to the idolators that their divinity had now only one gauntlet left, desired them to inquire of him, what had become of the other? to which they replied, "How should the inanimate idol be able to answer a question; what can he understand of such things?" Then said BIN CA'SIM, "what strange sort of god do you worship, who so far from being acquainted with the state of others, is not even able to answer a question concerning his own." The unbelievers were ashamed at the rebuke.

* 93 H. 711 A. D.

† Literally, the word is *دستوان* *dastwán*, gauntlet or glove, probably more correct as an ornament of some kind, than a glove.

II.—*Examination and Analysis of the Mackenzie Manuscripts deposited in the Madras College library. By the Reverend WILLIAM TAYLOR.*

Palm-leaf MS. No. 217, counter mark 74.

A :—TAMIL.

I.—*Cóngá désa Rajákal.*

There are two copies of this valuable manuscript both of which were read and compared together. The one was found to be an imperfect copy of the other, having besides a considerable chasm in the middle : the superior copy has also a short break in the passage relating to a change of VISHNU VERRD'HANA of *Talcád* from the *Jaina* to the *Vaishnava* faith ; there is also an omission of one or two names. In other respects the better manuscript is complete. The palm-leaves of this copy (and of the inferior one also) had suffered much from being eaten through by insects : in some places letters, in others words, were quite eaten away : these, however, could be made out by a little attention ; and to prevent further illegibility, I directed the manuscript to be restored in paper, forming a valuable record.

Though the title indicates only a narrative of the ancient *Cóngá-désam* (being as it would appear the same with the modern *Coimbatore* country) yet the work contains distinct chapters, or sections, which might be regarded as distinct productions on the *Chóla*, *Oyisála* and *Vijayanagara* kingdoms ; these kings having been successively conquerors of the *Cóngá* country. The first record of the country goes up nearly to the commencement of the Christian era, and narrates the rule of some chiefs down to the close of the ninth century, and conquest of the country about that time by ADITYA VARMA a *Chóla* prince. Various matters are narrated in connexion with this dynasty, and some light is thrown on the *Pándya-désam*, such as the records of that kingdom would not own. The *Cóngá* country then seems to have come under the rule of the *Oyisálas* whose capital was above the Gháts, in the Mysore country. These gave way before the *Ráyers*, of *Bisnagur*.

Both dynasties of *Oyisálas* and *Ráyers* are given from the commencement. The record is brought down to a period subsequent to the transfer of the remains of the *Ráyer* power to *Pennacóndai* ; and concludes with narrating warlike operations in the *Mysore* country, with the siege and storming of *Seringapatam* A. D. 1609-10, nearly two hundred years antecedent to a like event which made it for a time

so famous. At that time it is said to have come into the possession of the rāja UDIYAR of Mysore.

The manuscript is for the most part free from the mythological fable which usually disfigures *Hindu* documents, and is well supported by dates; in general referred to inscriptions which are mentioned; and many grants of land are specified with such reference. On the whole this is one of the best, and most valuable manuscripts in the collection. A more full abstract is not here given seeing that sometime since, I translated the whole; and intend to transmit a copy of it to the Bengal Asiatic Society for insertion, if thought worthy by them of such distinction, in the transactions of that illustrious Society.

Professor WILSON's notice of this manuscript will be found in Des. Cat. Vol. I. p. 198.

Books of Manuscripts on paper. Book No. 12, countermark 766.

Section 1.—The universal deluge according to the account of the Jaina people in the Chettupat district.

The account was given by one named ĆAṬUNDE'SVARER. There are some geographical details of the neighbourhood of the *Himālaya* mountains, with chronological definitions dealing in magnificent periods of time, and narrating changes of those periods. Bounds of *Dherma Cādam*, and *Mléchch'ha Cādam*. The period of great heat—of fire—rain—previous to the deluge; then other kinds of showers—among them of sugarcane juice—of poison—quintessence of poison; by which means the earth sinks down depressed. Then come showers of milk—nectar—water, and afterwards the earth becomes restored: grass, plants, shrubs, &c. re-appear. Men also again inhabit the earth, who dwell on it and increase. After forty thousand years, the *Menus*, and *Chacravertis* are born, and continue to rule. Then comes a period of twenty crores of crores of years, at the close of which the seven kinds of showers, as before, introduce the *yuga pralāya*, or periodical deluge. Certain other changes occur down to the year 2480 of the *kali-yuga*, corresponding with the year of the era of *Salivāhana* 1739 (A. D. 1817 when possibly the account was given). After another 18,000 years, there will be extreme heat for 21,000 years, and then in the *Dherma Cādam* only, the fire showers falling, will be followed by the periodical deluge.

Note. This short paper is in Tamil strangely mingled with *Prākṛit*; and the writing is so much faded as to be with difficulty legible. It contains the most extravagant exaggerations; but illustrates obscure expressions in other manuscripts, as to fire-showers; and may be

taken generally for a confirmation of opinion among the *Jainas* substantially the same as to the leading fact of the deluge with the opinions and records concerning the same great event by the Brahmanical Hindus.

Section 2.—Account of a Rája of Chenji (Ginjee) who persecuted the Jaina people.

In the year of *Saliváhana* 1400 (A. D. 1478, 9) CA'VARAI VENCATAPATI NAYAK ruled in *Ginjee*, over the *Tiruvadi* district near *Vridháchala*. Being a man of a low tribe, he demanded of the brahmans who among them would give one of their daughters to him as a wife. They replied that if the *Jainas* would first give him a wife, they would themselves do the same. The brahmans went to a famous *Jaina* in the *Dindivanam* district, who promised to give his daughter to the chieftain ; but instead of actually doing so, contrived to offer him a very cutting insult. The chief greatly incensed issued an order to decapitate all the *Jainas* that could be met with. In consequence some *Jainas* emigrated : some adopted the *Saiva* religion ; some were slain, and some dissembled, secretly following their own rites. In *Uppu-Véhir* a disguised *Jaina* was taken at a pool of water while performing his evening ceremonies in the *Jaina* method, and was sent to *Ginjee* ; but as the chief had just then a child born in his house, he pardoned the *Jaina*. This person after so narrow an escape vowed to devote himself to an ascetic life. With some preparatory studies he fulfilled his vow.

Another *Jaina*, through fear, had emigrated towards the south, passing from place to place, till at length in a dream he was directed not to go any further away. Immediately afterwards he heard of the approach of the Muhammadans towards his native place. He went to meet them, and advanced as far as *Arcot* ; where he acquired land to cultivate.

After some time he sent for the before mentioned *Jaina* ascetic ; and to prevent a strange religion being introduced, he located that person on his lands as a teacher and guide. Some time afterwards a brahman named TATTA'CHA'RYAR set up a pillar at *Conjeveram* and challenged any who might think proper to come and dispute with him. Hearing of this circumstance the aforesaid *Jaina* teacher named VIRACHENA ACHA'RYA went thither, and overcame TATTA'CHA'RYAR in polemical dispute, upset the pillar, and returned to *Uppu-Véhir* ; where he fell sick, and died. Subsequently the *Jaina* religion flourished greatly in that neighbourhood, and TAYAMUR UDAIGAR continued to

extend to persons of that persuasion flattering distinctions and privileges.

Note. This paper was more legible than the former one, but in some places difficult to be restored. It seems to contain a plain traditional statement of matters not very remote ; and, in the main, may possibly be depended on. Many *Jainas* live in the neighbourhood of *Arcot*, *Vellore*, and *Conjeveram*.

Section 3.—Account of the Sānc'hya, and other modes of religious credence.

In the early times during the reign of a son of *Bharata*, the *Muni Capila* performed penitential austerities after the *Jaina* (*Vaishnava*) mode. There is a defective *Prākṛit sloca*, or verse. Some notice follows of the foundation of the *Sānc'hya* School by *CAPILA*. Notices of other persons with defective *slocas*. Account of leaders of the *Jaina* system, and of their disputations with the followers of other opinions.

Remark. This paper is in the same handwriting, and mode of composition, as Section 1, but the ink so much faded, as to leave the meaning provokingly unintelligible. The attempt to read it, and by consequence to restore it, has been a failure. The information that, if otherwise might have been obtained from it, we most probably possess from other sources.

Section 4.—Customs and manners of the Jainas in the Chettupat district.

This paper contains two parts, here designated by the letters A. and B.

A. The *Yethi Dherma* and B. the *Srāvana Dherma*.

a. The *Yethi Dherma* is of ten kinds.

1. *Ard'hyavam*, to follow the right way, and teach it to others.
2. *Mard'hava*, to behave with reverence to superiors, and carefully to instruct disciples.
3. *Satyam*, invariably to speak the truth.
4. *Sāujam*, mentally to renounce hatred, affection, or passion, and evil desire ; and outwardly to act with purity.
5. *Tiyāgam*, to renounce all bad conduct.
6. *Cshama*, to bear patiently, like the earth, in time of trouble.
7. *Tupasu*, outward and inward self-mortification.
8. *Brah-mācharyam*, to relinquish all sexual attachment, even in word or thought.
9. *Aginchanam*, to renounce the darkness of error, and to follow the light of truth.
10. *Samyamam*, duly to celebrate all special periods, festivals, or the like.

b. The *Sravana Dherma* is of eleven kinds, 1. *Terisinigen*, one who relinquishes certain unclean kinds of food, with killing, lying, theft, and all anxious cares.

2. *Vritiken*, one who eats not at night, is faith-

ful to his teacher, to his family, and to his religion ; he is self-restrained and keeps silence, and zealously renounces the use of all pleasant vegetables. 3. *Sámáthiken*, is one, who with the foregoing qualifications, renders homage to the Divine Being three times a day, morning, noon, and evening. 4. *Proshópavásen*, one who fasts on certain days, so appointed to be observed. 5. *Sachitan-vrithen*, one who with the foregoing dispositions renounces certain kinds of food. 6. *Ráttiri bakh-ten*, one who observes mortification during the day only. 7. *Bramah-máchárya*, one always occupied in contemplation of God. 8. *Anaram-pan*, one who quits cultivation, and all other secular occupations. 9. *Aparigrahan*, one who renounces all kinds of earthly gain. 10. *Anu-mati-pinda-vrithen*, one who forbears to eat even that which he had prepared. 11. *Utishta-pinda-vrithen*, one who relinquishes dress, except for mere decency ; he carries a pot, and lives in the wilderness.

B. The *Párva-carmam* and *Apara-carmam*.

a. The *Párva-carmam* is of 16 kinds ; and relates to ceremonies preceding birth, attendant on it, or consequent thereto ; with any particular ceremonies attendant on special occasions, during life.

b. The *Apara-carmam* is of 12 kinds, and relates to ceremonies consequent on death ; the first being burning the body, and the others different rites appropriated to following days. The names only are given, without any explanation of the various ceremonies.

Note. Section 4, A is in the *Granthá-Sanskrit* character, with a little *Jaina-Tamil*, towards the close. B is *Jaina-Tamil*. Though not very legible yet the restoration has been effected, this section may have its use.

Remark. In the *Srávanī Dherma* particularly, some resemblance appears to some peculiar and known tenets of the Pythagorean philosophy. PYTHAGORAS is considered to have learned his system from the gymnosophists of India, usually confounded with the Brachmanes. But the Sanskrit term answering to gymnosophist is *Dígambara*, usually understood to have belonged especially to the ancient votaries of *Buddha*, and from it the brahmans of the south coined the corrupt term *Samanár*, to denote the shameless sect of the *Bauddhas* or *Jainas*. I think that the tenets taught by PYTHAGORAS were those of the Indian *Dígambaras*, or primitive *Bauddhists* ; and throw out the conjecture as perhaps meriting attention.

Section 5.—Representation of the Jainas of the Chettupat district.

A petition to Colonel MACKENZIE, Surveyor General.

The *Jainá* system was established in the Peninsula from very early

times, and had many fanes, with other buildings for sacred purposes, well endowed. The *Saiva* and *Vaishnava* systems arose in opposition; and the brahmans of those classes, by their learning and magical arts brought over the kings, or other rulers, to their mode of credence; followed up by persecutions of the *Jainas*, their champions in polemical discussion being first overcome by magical means, and afterwards destroyed. Some well-disposed rulers knowing these proceedings protected the *Jainas*, and made allowances to their religious edifices. A *Jaina* king from the north named YEMASITALA, came to the *Daudacaranya* (the great Peninsular forest) and clearing it, brought a large colony of people from the north. But KULO'TTUNGA CHOLA and ADO'NDAI, took the country; and by the counsel of the brahmans many *Jaina* edifices were appropriated to the *Hindu* system of worship, and other edifices were destroyed. At a subsequent period, the conquerors relenting, five *Jaina* fanes, at places specified, were protected and endowed. VICRAMA CHOLA especially made a free-grant of land to the village of *Chitambur*; copy of the inscription on stone, recording this grant, having been sent to Colonel MACKENZIE with the petition. About six hundred years ago YEDATA-RAYER, and VISHNUVA-DEVARAYER, gave 1400 pagodas as a free donation: the inscription commemorating this grant remains. About 200 years ago VENCATAPATI-RAYER gave a free donation of 1000 pagodas: copy of the inscription, recording the grant, transmitted. The rulers of the *Carnataka* country gave donations. During the rule of the Muhammadans, as the brahmans were their agents, these, without knowledge of their employers, resumed the whole of the grants, with the exception of only 200 pagodas. Besides IBRAHIM subadar fought with RA'YAJI of *Arcot*, and taking possession of the whole very unjustly left only 40 pagodas of the annual endowment. The *Jainas* complained to the nabob (name not specified) who issued an order on the subject, but the messenger bringing the order was seized by the subadar, and ill-treated. Terrified by this proceeding the *Jainas* made no more complaint, but committed their cause to God. When the Honorable Company had assumed the country, they removed the distress which the *Jainas* had suffered, and conducted themselves with equity to all. The people generally were restored to their privileges; the *Hindus* were employed and favored, and the *Saiva* and *Vaishnava* fanes protected; but about 160 fanes belonging to the *Jainas* were neglected. The *Chitambur* fane, being ancient and distinguished, received some little notice, to the extent of 60 pagodas. Considering that the arrangement was made by servants of the Honorable Company, the *Jainas* were afraid to make any complaint. At length "as a child addresses its father" they

took courage to address the Government, pointing out the alleged invidious distinguishing favors, accorded to the *Saivas* and *Vaishnavas* above themselves, who were earlier established in *this* country (the *Tóndamandalam*). "As we (says the petition) do not desire much, we now enclose a list of actually necessary expenses for *Chitambúr* and other fanes."

Section 6.—Account of the Jaina fanes at Chitambúr in the Chettupat district with list of expenses.

The required expenditure referred to in the preceding article follows here; but as it relates to very trifling items and to the supply of such articles as oil, incense, lights, and the like, it was not thought necessary to copy out this portion, which could be of no general interest.

The following queries came after the list of required expenses; and appear, as far as can be made out, to be inquiries given by Colonel MACKENZIE to his agent named APÁVU: some of the inquiries would seem to have been answered by the foregoing and other papers. 1. From the early times to the present, the statement of kings who ruled, requires to be made, either from written history or from tradition. 2. Regulations of old and down to the present time, with the dates or periods of their authors required: also their countries, towns and eras are wanted. 3. Eight thousand *Munis* were killed at *Madura*. In what particular places, and at what times did this event occur? 4. As the *Jaina* system is asserted to be the original one, at what time and place did it begin? 5. To what place in *Ceylon* were the *Bauddhas* first sent? 6. It is said that the world was destroyed by a flood, and only *Satyavrata* preserved: what do the *Jaina* books mention on that point? 7. What do the *Jainas* say of showers of fire and of mud, destroying the earth? 8. From what country did the *Ládas* and *Lebbis* come? 9. The *Yethidherma* and *Grihastha dherma*(the rest illegible).

Section 7.—Account of Damara-pákam in the Arcot district.

In the beginning of the era of *Saliváhana* this country (*Tóndamandalam*) was governed by the *Curumbers*, who built forts; and *KULOT-TUNGA-CHOLA* hearing that they were bad people, came and conquered the land which he gave to his posterity. After some time, in the days of *VIRA-JAMBU-RAYER*, one named *VIRA-VASANTA-RAYER* acquired authority in this mud fort and changed the name to *Vira-vasanta-puram*, building temples, which after some time decayed, together with his authority. In the time of *ACHYUTA-RAYER* (of *Bisnagar*) an investigation was made by him, who had a car made and a fane built to *Varada-rajá*, with other similar matters. In the time of *ZULFEGAR*

words, and letters. The general sense is however, preserved. It is in poetical Tamil, of the plainer sort, and merely the legend of a *Jaina* fane. The *Royer's* name is not mentioned, nor any date. Accordingly the only use of the document is to illustrate native manners, and the mode of the introduction of the *Jaina* system at a remote period. The tribe of *Védars* (a pure Tamil word having no connexion with the Sanskrit word *Véda*) were not Hindus; but, according to indications in these papers, they were the earliest inhabitants of the peninsula, giving way before the *Curumbars*, even as these also were superseded by the pure Hindus. In *Hindu* writings the term *Védar* is synonymous with every thing low, vile and contemptible under a human form.

Section 10.—An account of a hillock of white pebbles (fossil remains) of Callipiliyūr in the district of Chettupat.

To the east of the above village there is a hillock entirely of white stones. The hierophant of the fane in that village, gave the following account of them. Two *rácshasas* named *VÁTHEN* and *VIL-VÁTHEN* lived here, and were accustomed to feast foot-travellers in the following manner: *VIL-VÁTHEN* first slew his younger brother *VÁTHEN* and then cooked him in pots out of which he fed the traveller. The meal being finished *VIL-VÁTHEN* called on his brother by name, who came forth alive, rending the bowels of the guest, who dying in consequence both of the savages feasted on his body. On the occasion of the marriage of *SIVU* and *PARVATI*, at *Cailása*, they dismissed *AGASTYA*, sending him to the mountain *Pothaiya* in the south; who, on the road, came by the residence of these *rácshasas*, and was treated with great civility by *VIL-VÁTHEN*, and the usual meal. On its being finished *VIL-VÁTHEN* called his brother; and *AGASTYA*, penetrating the state of the case, took up the words and added a word or two of Sanskrit, in consequence of which *mantra* the body of *VÁTHEN* dissolved, and passed away, without doing *AGASTYA* any mischief. He denounced a woe on *VIL-VÁTHEN* who died. The bones of these two *rácshasas* having fallen to pieces, and becoming petrified, are now termed white pebbles.

Remark. Setting aside the ridiculous fable, a tradition like this implies that the Hindus designate savages by the term *rácshasas*; and that possibly (as Dr. LEYDEN has intimated) cannibalism was common in India, among the tribes supplanted by *Brahmanism* or *Bauddhism*. The hillock itself if really a fossil petrification should be an object of attention to the naturalist.

Section 11.—Account of the fane of Tiruvapádi and of the ancient fort of Adi-narayan Sambhuva Rayer at Váyalar in the Chettupat district.

In the ancient times PARASARA-RISHI (father of VYÁSA,) and MÁR-CANDAYA-RISHI, retired for penance to this mountain named *Sridarisanam*. VISHNU came thither to see them, and remained reposing on ATHI-SESHA; giving *mócsham* (or eternal happiness), to such as came to worship him there: these visitors being not men, but the inferior gods. They formed mountain-pools for bathing, which now make five cascades. The *tirthas* (or pools), are designated by names. In one of them the footsteps of VISHNU are visible by the marks left. A little to the east of this hill VIRA NARRAYANA SAMBHUVA RAYEN built a fort, governed the country, and made some charitable grants. Fragments of buildings in brick-work indicate the site of this fort. His palace was on a hill at some distance westward; where also vestiges appear. There is also a Vaishnava fane. As only a few dwellings are in that place it is now called *Vayalár* (a hamlet in the open fields). At the foot of the hill there was once a Saiva fane, of which now only the emblem of SIVA remains. Under the hill are other antiqué vestiges, among them of a wide street with *mantapas* (or porches), and other similar things, appendages to Hindu worship. In a former *yuga* (or age) the *Vánara* (sylvans) paid homage to RÁMA, the incarnation of VISHNU; and when the latter returned to *Váicontha*, he called for them: some followed him, and some remained, continuing to the present day, in Vaishnava fanes, to attend on the god. The black-faced species of ape especially abounds in this district.

This statement was written according to the account given by the NAMHIÁN (brahman) of *Tiruvayipadi*, and of *Vencatésa-mútháliar*.

Remark. From an account like this we can extract nothing more than the certainty of some head town of a district, having existed under a chief, whose name elsewhere appears, and who may have been among the chiefs arising out of the ruins of the ancient *Chóla* dynasty.

Section 12.—An inscription on a slab at the entrance of a Jaina fane at Turakal in the district of Vandivási.

The inscription commemorates the grant by TIRUMUCAPA SVASTA SRI GOVA-PERUN-SINGHEN, of a *Pallichantam* (alms-house), to the officiating hierophants and their assistants. It has no date except the specification of *Carteceya* month (part of November). It is in Tamil mingled with Prákrit in the usual *Jaina* manner; and does not appear to be complete, unless the sign at the end be intended to denote (&c.)

by the copyist, as not having transcribed the whole, which seems to be not improbable.

A remark by APPAVU (Col. MACKENZIE'S Servant.)

In *Turákal* there is a small hill, on which there is a curious *Jaina* fane, and another one at the base. In one place there is an image of fine workmanship, and in another place four well sculptured images. In the latter there are three inscriptions, respectively in the *Canarese*, *Tamil*, and *Sanskrit*, of which the letters would require great pains to copy, or decipher. There is the unfinished commencement of a sculptured cave, like those at *Mávalipuram*, and several natural caves around the hill; in three of which there are *Jaina* images, on seats (or pedestals): they say that *Jaina* ascetics lived in these caves. There was most probably a *Jaina* *subah* (or assembly) here in former times. The description and account were obtained from LOGA-NÁTHA-NÁYANAR.

Section 13.—An account of Aragiri hill, near the village of Arun-gunram in the Arcot district.

In the *Scánda-purána* by VEDA-VYAS, an account is given of a place three and a half *yojanas* (leagues of 10 miles each) west of *Conjeveram*; where there was a celebrated fane endowed by many *rájas*, as KULOTTUNGA CHOLA, and others. Notice of festivals in the neighbourhood. In the fanes of *Tirtha-náthar*, and *Cudapa-náthar*, are inscriptions of the year 1120 era of *Saliváhana*. On a large stone there is an inscription of the time of KULOTTUNGA CHOLA commemorating a treaty between JAMBU-RAYEN who ruled in west country, the conqueror of the PANDIYA king, and *rája* CESARI VARMA. There are besides many other inscriptions, commemorating grants by other persons. The Muhammadans broke up this fane, and used the materials in building *Arcot*. In the shrine of one of the emblems of SIVA, to the north-east some offerings continue to be paid. There is a perpetual spring (fountain) near the place. In the era of *Saliváhana* 1122, one, named CHENGENI VICRAMA RAYER JAMBU-RAYEN, built a fane to the (*gráma devatí*) village tutelary goddess: an inscription on a pillar of the porch is the attestation. Various benefactors built and endowed particular places, and after their time a chieftain named ANJATHI CAUDAN acquired authority and fixed boundary gates at a great distance around. At that time *Vellore*, *Arcot*, and *Arnee* (forts) were not built: when these were constructed that chieftain's power had passed away. To the paper is appended a list of ten sacred pools, and two larger reservoirs.

Observation. The foregoing paper seems to afford some historical indications ; and the neighbourhood therein referred to would seem to abound in remains of some antiquity. Should the inscriptions not prove to be found among those in the collection, from the *Conjeveram* district, they would perhaps merit an attentive examination. We find herein a confirmation of Section II, and that JAMBU RAYER (or SAMBHUVA RAYER) was probably the titular name of some series of *râjas*, or important chieftains.

Note. From Section 10 to 13 the handwriting differs, and with a few exceptions, is legible, not causing much difficulty. these sections have been satisfactorily restored, though in a very few years more the ink would have entirely faded.

(A paper not sectionized in the list at the head of the Book No. 12.)

*Account of the Vellore Muhammadan Chiefs, composed by VELLI
CANDAIYAR.*

In the course of the *Calî-yûga*, GHULAM ALI KHÂN ruled in *Vellore*. He had four sons. The names of these are mentioned, and their rule. ACBAR MUHAMMAD ALI was the youngest, and most distinguished. In his time one named SILA NAYAKEN made great disturbance in the country. A force was sent against him of which the marchings and halts are stated. On coming to the boundary of SILA NAYAKEN, spies were sent, who after having ascended the hill-fort of SILA NAYAKEN returned, and reported that they had seen only women. As many of these as should be taken were ordered to be sent to *Arcot* ; and one named RANGAPA CHETTI, advised to have their hands and feet cut off, which it is implied was done. Mention is made of a lame *Pandit*, who supplied SÂDAT ULLA KHÂN with ten lakhs of money. The cause of the above hostile movement is stated to have originated in a disagreement between SILA NAYAKEN, and one named VARADAIYAR ; who had been accustomed mutually to accommodate each other with loans to the extent of 30,000 pieces of money. But on one occasion the loan of only 4,000 was refused to SILA NAYAKEN. In resentment SILA NAYAKEN waylaid the pregnant daughter of VARADAIYAR, and after seizing her, had her bowels ripped open, the foetus taken out and its place supplied with thorns ; the abdomen being afterwards sewed up. VARADAIYAR went to *Arcot* ; and, by Muhammadan aid, effected the destruction of his cruel neighbour.

Observation. Exclusive of the above, there is some absurd matter as to the derivation of the name of the *Pâlâr* (or milk-river) and of the *Shadaranya* ; which will be found to be better given elsewhere

in these papers. There is also a very loose paragraph of no weight, as to what the writer had heard of the *Mahrattas*, and Muhammadans, in the Peninsula. It states that the *Rayer* ruled 500 years before the Muhammadans, the *Vellalas* for 700 years before the *Rayer*. Three hundred years preceding are not filled up with any name; and antecedently to that period the *Séra*, *Chola*, *Pándiya* kings, and the *Chacra-vartis* ruled.

This is not a well written paper. Its only use seems to be to explain who was *SILA NAYAKEN* before referred to (Section 8); and to shew how ruthless human nature can sometimes be, under particular circumstances.

Section 14.—Account of *Tirupanang Kádu* in the district of *Tiruvatur*.

Reference to the marriage of *SIVA* and *PARVATI*, on *Cailása*. The assembly of *rishis*, and others, among them *AGASTYA* and *PULASTHYA*; at which time the earth was irregular in height, and *AGASTYA* received an order to go and make the earth equal or level. A promise, that *SIVA* would appear to him by the way, was accomplished at this place, called *Tirupanang Kádu*, as being situated in the *Doudacáronya*, abounding with *Pouna* (i. e. palmyra) trees. At a subsequent period three celebrated poets named *SUNTARER*, *APPAR*, and *SAMPAUTAR* came to *Tiruvatúr*, and sung the praises of that place. A little to the south of *Tiruvatúr*, at *Tirupanang Kádu*, the god appeared to them in the guise of an old man—struck the ground with his *súlam*, producing water—and provided food. Subsequently a *Chola* king who had incurred the guilt of killing a brahman came this way, and to remove that guilt, seeing the place without a fane, he built a double shrine for the god and goddess, with the usual accompaniments and grants, recorded by inscriptions. After the *Chola* kings had passed away, one named *TAMALA-VAREE* built a large *mantapa* (porch) in front of the shrine with a mud fort around. Subsequently some district chieftains turned this fortification into a stronghold, and put troops therein. In the time of *ANAVERDHA KHÁN*, nabob of *Arcot*, 500 *Mahrattas* came by treaty and treacherously took the fort, killing *MU'RTI-NAYAKEN* its commander, and rasing it to the ground. The families of people for ten miles round, through fear of the *Mahratta* cavalry, had taken refuge in the fort; many of these the *Mahrattas* killed, while some escaped wounded. The shrine was plundered, and its service ceased. In the time of *Ráyaji* the ruler of *Arcot*, a wealthy man from *Madras* made some endowments. In the great Muhammadan troubles worship

ceased. The brahmans did not succeed in obtaining the patronage of the Hon'ble Company. A brahman made some repairs, with alms collected by him; and the *Cúmbhábishégam* (or transfer of the inherent divinity of the image, into a pot of water), was performed during the process of the repairs.

Section 15.—Account of the tribe of Nohkars in the Tiruvatúr district.

This class of mountebanks arose about the year 214 era of *Saliváhana*. They acquired skill by the assistance of *DEVI* (or *Durga*). On one occasion they especially exerted themselves at *Trinomali*, fixing their pole on the top of one of the loftiest turrets of that fane; and going through their feats as though the pole was fixed on the ground. They then, as a body, begged of the spectators to affiliate them into their tribes; which request was refused. At length the tribe of weavers consented to receive and incorporate them into that tribe. Hence they are considered to be the weavers adopted children.

Note. These people have not the appearance of *Hindus*. Perhaps they came to India about the abovementioned period; and they would desire to be naturalized. I have heard another account of their origin. They may add a class to the number of those who, being in this country, are not aboriginally *Hindus*.

III.—*Manuscript Book, No. 15, countermark 769.*

Section 1.—Account of the war of TONDAMAN CHACRAVERTI and VISVAVASU rája.

ADONDAI the son of KULOTTUNGA CHOLA having destroyed the *Curumbars*, and cleared the waste-lands, ruled the country. Its four boundaries are mentioned, and a hyperbolical description is given of its splendor and power. A king from the north named VISVAVASU came with a great army and fought with him for a year, by which much of the country was laid waste, and the whole conquered, ADONDAI fled with some scattered remnants of his forces, and lived for some time on fruits and roots, the spontaneous productions of the earth. While wandering about a temple of golden-colored turrets struck his view: he entered and worshipped ISVARA and ISVARÍ therein; and determined to remain there. After some time he was favored with a vision of the local *numina*, who assured him that his adoration was accepted, and promised him a great army, with the entire recovery of his possessions. As TONDAMAN was afraid of his adversary, this fear was reproved; and as a sign he was told, that on going to the encounter, he

should find at a certain place the figure of *Nandi* (the bullock vehicle of *SIVA*), which usually looks at the gate of a shrine, turned the other way. A greatly exaggerated description is given of the battles ; which resulted in favor of *ADONDAI*, who at length, with his own hand, cut down *VISŪVASA rāja*. This last (in the *Hindu* poetical fashion) is then represented as turning into a celestial form ; and addressing the conqueror, he gives an account of the cause why he was banished from *INDRA*'s presence, to be a king on earth, and to have his form restored by the hand of a votary of *SIVA*. After declaring the right of the conqueror to rule over the land, he went to the invisible world. The victorious *ADONDAI* appointed ministers to assist him, and returning to *Suriti-puri* (the place of the former vision) he made great additions of shrines and ornaments, and caused the public festivals to be conducted with regularity.

Remark. This is only another and more poetical version of an account otherwise mentioned in other papers of the collection. The leading fact, that *ADONDAI* conquered and regulated the *Tondaman-dalam* is unquestionably historical. The means will be found to exist in the collection of bringing out the connected circumstances in full detail.

Section 2.—Account of Arcot ; derivation of the word ; first and second settlement ; and subsequent history.

The *Brahmānda-purāna* is adduced as an authority that *Nandi* (the vehicle of *SIVA*) for some fault was sentenced to become a stone on earth, and accordingly became a mountain, called *Nandi-durga* (*Nundidroog*). *VISHNU* interceded with *SIVA*, on behalf of *Nandi*. *SIVA* ordered *GANGA*' in his hair, to fall on the fountain, (the river *Pulār* rises from *Nundidroog*) and to wash away the fault of *Nandi*. *GANGA*' replied that if she descended on earth she wished *SIVA* and *VISHNU* to be in their shrines on the banks of the river, and that she might run between both to the sea. The request was conceded, and *SIVA* came to *Cānchipuram* (*Conjeveram*) in the shape of a *brahman*. An account of the images of *SIVA* ; and of the six *rishis* who established them. The waste country wherein these six ascetics dwelt was termed *Shadāranya* (in Tamil *Aru-Cādu*) "six wildernesses ;" whence came the word, popularly written and pronounced, *Arcot*.

When *KULOTTUNGA CHOLA*, and his illegitimate son *ADONDAI* had conquered the foresters of the country, they saw that this *Shadāranya* had been the abode of sacred ascetics ; and hence they built many fanes with the usual accompaniments at *Cānchipuram* and other places.

Subsequently the edifices built by them went to ruin; and the country became a wilderness, as it had been before. Thus it remained for some time till NALA BOMMA-NÁYADU, and TIMMA-NÁYADU, being on a hunting excursion from *Pennacondai*, hearing there was a multitude of beasts in this forest, came hither. They saw an old hare chase a fierce tiger and seize it by the throat, at which they were surprised: they considered this to be an auspicious place; and, having caused it to be colonized, they cut down the forest termed *Arcádu*, and built there a stone fort, with treasure discovered by *Anjanam*, (a kind of magic,) and ruling there the power descended to several generations. At length ZULFECAR KHA'N, with a Muhammadan force, came into the country, and, after fighting with the *rāja* of *Ginjee* for twelve years, he took the hill-fort of *Ginjee*, and placed DAU'D KHÁN in this country as his subadar. *Ginjee* and other places were included in the district of *Arcot*, and the subah of *Arcot* thenceforward became famous. DAU'D KHÁN after regulating all things went to the north. ZULFECAR KHA'N colonized the country with Muhammadans, and greatly improved it. He was superior to the former *Carnátaca* *rāja*, and he made some benefactions to Hindu fanes. From the constant increase of inhabitants the town became very large. During this Muhammadan rule, it was not allowed to the Hindus to build large houses, or to travel in any conveyance. If any such thing appeared the persons connected therewith were seized, fined, and reduced to poverty. Such being the case with the settled residents, the persons employed as servants, were six months on fatigue duty, with a bundle of rice in their hands, and another six with their hands tied together in fetters. At length when the English came into power, and the disturbances had ceased, as *Arcot* was a large town it received much attention; and the inhabitants were happily released from their troubles.

Remark. The former part of this section is merely of etymological consequence, but the latter portion, as to the founding of *Arcot*, is valuable, and is capable of being joined in its proper place, with the other portions of real history to be gathered, here and there, from the materials which form this collection.

Section 3.—Account of the Bauddha rājas who ruled in the seven-walled Fort of Arzipadai tángi.

Anciently the *Bauddhas* ruled over one-third of the country forming the *Dáudacáraya*. They built a large fort with seven walls, called as above. There were *Bauddhist* fanes of celebrity at various places among them at *Conjeveram*. The last of their rulers was YEMASITHALAN. Many persons came to them from a great distance in the north

teaching their doctrinal and polemical *sastras*. They became very accomplished in their religious ways. They were united among themselves, and sent their children to a great distance to receive instruction.

Two persons named ACALANGAN and NISHCALANGAN produced a persecution by privately writing in a *Bauddha* book that the *Jaina* system was the best one. A device was had recourse to in order to discover the authors; and, on being discovered, they were forced to flee for their life, hotly pursued; when NISHCALANGAN, by sacrificing his life, contrived to allow ACALANGAN to escape, charging him, on succeeding to spread their system. The *Bauddhas*, in the heat of the moment had tied a piece of flesh in all the *Jaina* fanes, with a *slóca* of contemptuous import. ACALANGAN after his escape put a vessel containing ordure in the *Bauddha* fanes, with another *slóca* in retaliation. Under these circumstances of discord, the *raja* ordered an assembly of *Bauddha*, and *Jaina*, learned men to dispute with each other, and to finish within a specified time, when he would himself embrace the victorious system, and put all of the opposite party to death by grinding them in oil-mills. The *Bauddhas* concealed themselves behind a thin cloth enclosure, so as to see their opponents without themselves being seen, and managed the discussion by means of doing homage to an evil goddess: as the appointed term approached the *Jainas* became anxious for their lives. In this extremity ACALANGAN had recourse to a goddess named SVÁLA-DEVI, who appeared to him, and gave him a phrase to use, which would mean, "what more?" or "what is there behind?" Bidding him kick with his foot behind the veil or curtain. On the morrow ACALANGAN inquired "what more?" or "what is there behind?" and at the same time by kicking at the curtain, he broke a large jar in which the fermented juice of the palm-tree had been kept, wherein from long standing there were worms, and whence an offensive smell proceeded. The king in consequence declared the *Bauddhas* to be conquered, to which they were compelled to accede. ACALANGAN was afterwards admitted to the *raja's* presence, and became his instructor.—There is a reference to further matter on the subject contained in book No. 27.

Remark. Under restriction as to that reference, it may be observed that from this section the *Bauddhas* and *Jainas* clearly appear to have lived together as people of one religion under two modifications; the *Jainas* gradually increasing by coming from the north, and that a casual dispute only led to the violence of a schism. The account is an *ex-parte* one from the *Jainas*, who seem to have supplanted the *Bauddhas*. The statement that these last had a fane at *Conjeveram* is consistent with vestiges found there, and elucidates a part of the *Madura Sthalla-pu-*

rána, while it affords an idea as to the *time*; checking the extravagance of that *Purána*. Supposing the statement received from the *Jainas* to be with them a matter of record, or correct tradition, we may conclude with certainty that incidents in the *Madura Purána*, carried up to a high antiquity, were not more remote than the early part of the Christian era. In this way, I conceive, documents which seem to be trifling in themselves may, by comparison with other documents, assist in elucidating points of actual history. The *Brahmans* and the *Bauddhas* or *Jainas*, are the best possible checks on each other. The punishment by grinding to death in oil-mills, is one well known to Indian History; and in the progress of development of these papers it will be seen that *Bauddhas* and *Jainas* were subjected to it, at a later period, by *Hindu* kings, under *Brahmanical* influence.

Section 4.—Account of the destruction of Eight Thousand Jainas by the famous SAUMPAUTAR-MURTI, at Punai-takai-matam.

This is an account considerably *ornamented*; and much resembling the accounts which we otherwise have of the destruction of the *Samunat* at *Madura*; herein also referred to. The site of the transaction is however different, the name of the king who is concerned is not mentioned nor yet the name of his kingdom. I am doubtful whether the transaction be not the same with that which occurred at *Madura*. At all events the paper is worth translating, as a note, or illustration, to any leading view of the whole subject. The general fact that *SAMPAUTAR* was the inciter of an extensive and cruel persecution of the *Bauddhas* or *Jainas*, by the *Saivas*, is historical.

Section 5.—Account of the first founder of the Chola kingdom, named TÁYAMÁN-NALLI.

Anciently the *Pándiya*, *Chóla*, and *Tónda* countries were one vast forest, called after *DAUDACA* a *rácshasa* that dwelt in it. *RÁMA* brought several people from the north, and one person, named *TÁYAMAN-NALLI* settled at *Trichinopoly*; then surrounded by a vast wilderness. He built a fane and placed an emblem of *SIVA*, called after his own name, on the rock: he also paid great attention to cultivation. He had a son called *VEN-CHOLAN*, from connecting the *Cauvery* river with the *Vennar*, and thereby fertilizing an enlarged extent of country. His son was *CARI-CAUDA-CHÓLA* so called from having embanked the *Cauvery* river.

Remark. Of the accuracy of this paper I have some doubts, chiefly because the name of the fane on the top of the rock of *Trichinopoly* is said to be an epithet of *SIVA* of the same import, in *Tamil*, with *Mátri-*

b'huvesvara in Sanskrit; that is "SIVA who became a mother," from a fable that SIVA gave suck to an orphan; being no doubt some historical circumstance, veiled under an emblem, or hieroglyphic. The name was also borne by a famous *adwita* poet at *Trichinopoly*. Whether it belonged to a colonist from the north, as stated in this paper, I would leave others to determine.

General Note to Manuscript Book, No. 15.

The paper on which this book is written remains in good preservation, unattacked by insects. But the writing being very pale, and liable to early illegibility, pointed it out for restoration. The contents of the book are of average interest, and a few passages are rather special.

IV.—*Carnátaca rájakal Savistára Charitra, or a General history of the Peninsula.*

(*Palm-leaf Manuscript, No. 214, countermark 75.*)

This work, which is of no ordinary interest or importance, professes to be a general history of Peninsula India, Muhammadan as well as Hindu, and to include the period from the commencement of the *Cali-yuga*, corresponding with the installation of PARICSHÍTA son of ABIMANYA, and grandson of ARJUNA, down to *Cali-yuga* 4908, being *Acheya* year of the Hindu cycle, era of *Vicramaditya* 1864. *Saliváhana saka* 1729, (A. D. 1807-8.) It is a great pity that there is a small chasm in one place, and a much larger one in another, though not in the most valuable portions. The general nature of the work may best appear from the following abstract, often little more than a mere index to the contents.

Introduction. The usual invocation. The author's name NARARYANEN of the *Anantakón* race of *Ginjee*. The book was composed while Lord W. BENTINCK was Governor of *Madras*, at the special request of Colonel WILLIAM MACLEOD then Commissioner at *Arcot*; who desired NARARYANEN to write down a narrative of events in India from the earliest times, as such an account would be very acceptable to Europeans. In consequence of this request NARARYANEN felt great anxiety that his work should be complete and authentic; and, after six months preparatory study, during which he specially procured the aid of learned Muhammadans, and acquired from them all the details of their books and records, he wrote down this compendium of results. He offers the customary apology to authors and critics for any deficiency that may be found in his production.

The Narrative.

The first *Cánda* or section, on primeval matters. A reference to the creation of elementary principles; the *Brahmándam* or mundane egg,

the formation therein of the different orders of beings and things. The greater and lesser periods, or ages, periodical deluge; formation of inferior gods, *asuras*, and men; *Avatáras* of *VISHNU*; eclipses, how accounted for; fasting at that time peculiar to India; Hindu notions of geography, mention of *Nipál*, *Moghulistán*, *Túrkistán* and *Hindustán* proper. The birth of *CRISHNA* about one hundred years before the end of the *Dwópara-yuga*, and his building the town of *Dwáraca*, on the sea-coast, and reigning there. His actions are stated in plain language, divested of the marvellous.

The second *Cánda*, or section, relating to the royal line of *Hastiná-puri*.

The genealogy of the race deduced from *Sóma*. Accounts of the *Pandavas*, and other persons, similar to matters in the *Mahábhárata*, but reduced to simple narrative, by the rejection of hyperbolical metaphors. A long lapse of time given to the later descendants subsequent to *JANAMEJEYA*. *VICRAMADITYA* conquered and ended that race. References to *SALIVÁHANA* and *BHO'JA* rája, with their successors (of great value if authentic), down to year of the *Cali-yuga* 3700, about which time is fixed the commencement of the *Hegira*; Hindu kings ruled 591 years after that period. The conquest of *Delhi* placed in the reign of *PAITHU*. Rise of the Muhammadan ascendancy.

The third *Cánda* or section. Account of the *Willaet*, or original country of the *Muhammadans*.

Geographical details and definition of the country north-west of the *Indus*, adapted to aid in fixing the reference of names in *Pauranic* geography; mention of *ALEXANDER'S* victory over *DARIUS*; extended notice of ancient *Irán* and *Túrán*; rise of *MUHAMMAD* in year of *Vicramáditya* 621, era of *Saliváhana* 486; notices of the *CALIPHS* his successors; a somewhat full account of *HASSAN* and *Hóssen*; various subordinate matters; *Cersian* invasion of *Multan* and *Lahore*, (by way of *Candahár* and *Cábul*) against *RÁMA DEVA* king of that part of the country, (*Hegira* 431,) who routed the invaders and drove them back across the *Indus* at *Attock*. Reference to *FIRDAUSI* author of the *Shah Nameh*, the insufficient reward given to him, which he bestowed in charity, and satirised the promise-breaking patron. Invasion of *Delhi* from *Persia* taking tribute; extension of the eruption in the *Deccan*; plunder of the *Carndátaca* country extending as far as *Seringapatam*. Images of gods taken thence, and carried to the *Pádsháh* at *Delhi*; *RAMANUJA* was then at *Seringapatam*, and went to the *Pádsháh* at *Delhi*; by making interest through the medium of the *Pádsháh's* daughter he recovered



the sacred images and brought them back; the *Pádsháh* after making a treaty with the *Delhi* monarch returned to *Irán*. Another invasion in the year of the *Hegira* 622, with subordinate matters.

The 4th Section on Delhi affairs.

In *Hegira* 625, Sultan CAIAS DIN *Pádsháh* invaded *Multán* and was defeated. There are many following details of battle and negociations, not well admitting of an abstract. At a later period there is special mention of MIRZA ALA UDDIN GORG, as having conquered BAHARAM SHAH and being seated on the throne of *Delhi*. He sent to demand tribute from the southern kings in *India*, which was not given, and the refusal led to various hostilities. Affairs of *Gujerat* are introduced. FIROZ SHAH is said to have acquired extensive power in *Hindustan*. Other details of more or less importance are given.

The 5th Section. Account of TIMUR.

A shepherd boy named TAYAMU'R, was in the habit of leading out a few sheep belonging to his mother to the forest, wherein one day he met a holy man; who, in a manner minutely detailed, prophetically announced his future sovereignty, and that he should be the head of a dynasty of twenty-one kings. At 18 years of age TAYAMU'R discovered treasure in a well: relinquishing the care of sheep, he assembled troops and made successful incursions on *Irán*. He overcame various chieftains, and conquered the troops sent against him by the *Pádsháh*, defeated the *Pádsháh* himself and took him prisoner. In *Hegira* 773, TAYAMU'R imposed tribute on *Irán*. He subsequently attacked the kingdom of *Turán*. TAYAMU'R gave to four of his sons, four kingdoms. He invaded *Afghánistán* and overthrew its ruler. Subsequently TAYAMU'R invaded *Hindustan*. He sat down on the *Delhi* throne *Hegira* 801. Minor details. Transactions with the *Shah* of *Roum*. Intending to invade the empire of *China*, he fell sick and died on the way H. 807: various details of the *Delhi* empire follow. At a later period some notices of *Oudipore* and *Jeypore* are given.

(A small chasm occurs, the palm-leaf, No. 51, being wanting; it may be recovered, and space is left for it in the restored copy.)

Some details respecting HUMAIUN SHAH, his recovery of courage after the loss of his kingdom ascribed to a singular reproof unconsciously given to him by a woman, who charitably bestowed a meal on him when he was a fugitive in disguise. ACBAR; his inquiries into *Hindu* literature, part of it transfused into *Persian*, at an expense to him of three crores of rupees. He died H. 1014. His son JEHANGUIR—in-temperance; other habits; attachment and gifts to NOURMAHAL; notice of the *Bengal* soubah, held by the younger brother of NOURMAHAL,

who abusing his trust was ordered to be beheaded, but escaped by her contrivance. Anecdote of three lime-kilns kept ready by the *Shah* for the death of himself, of NOURMAHAL and her brother, in case of emergency. AURUNGZEBE. The *Mahrattas*; various details; foundation of *Aurangabad* H. 1060. Notices of ADIL SHAH, and the ruler at *Hyderabad*. Magnificent tomb; details of tributaries. AURUNGZEBE's behaviour towards his father and brothers. Affairs of the *Panjab* and of *Gujerat*. Mention introduced of *Anagundi Ginjee*, and other *Carnátaca* countries. *Vellore*, *Ginjee*, *Arnee*, *Tanjore*, governed by him. War with SÁHOJI, chief of the *Mahrattas*. Death of SILOJI rája; crowning of SÁHOJI who ruled in *Sattará*. The *Pádsháh* sent ZULFECAR KHÁN to conquer the *Carnatic*; fought with the *Mahrattas*, took *Ginjee*. Mention of DAU'D SHAH; made *Killadár* of *Ginjee*. ZULFECAR KHÁN returned. The *Mahrattas* attacked him; details of the *Mahrattas*. AURUNGZEBE sent his son ASUPH SHAH to *Bengal*. Arrangement for his sons previous to his death, which took place in H. 1119. Various details concerning his successor. Details relative to some *Amirs* of the palace. Other matters down to H. 1131, when MUHAMMAD SHAH became *Pádsháh*. He sent out a firman to various kings as far as to *Arcot*. Various details inclusive of *Carnatic* affairs down to NADIR SHAH. AHMED SHAH, subsequent matters.

Section 6th.—Concerning the Mahrattas and the Tuluva country.

The country referred to in this section lies between the *Nerbudda* and *Toomboodra* rivers (the *Nirmathi* and *Túmbúdra*). That land used to give tribute during the *Dwápara-yuga* to the kings of *Hastinápuri*, down to the time of JANAMEJEYA. SALIVÁHANA was born, an illegitimate child of a brahman, at *Múnguítpatnan* at, or near to *Ráma-giri* (or *Dowlutabad*). He made extensive conquests even to the *Cauvery* river. He overcame VICRAMÁDITYA, and placed the son of the latter on his throne as a tributary, at *Oujein*. Many other kings ruled for 4000 years.

Transition to the land of *Tuluva* and the upper *Carnátaca-désam*. A shepherd of the *Curumba* tribe did service to a *rishi*, or ascetic, who discovered to him hidden treasure, with which the shepherd quitting that occupation raised troops, and laid the foundation of *Anacóndai*, and afterwards of *Bijayanagaram*. He was named PRAVADA-DEVA-RÁYER. No mention of intervening matters down to NARASINGA-DEVA-RÁYER, who introduced a new dynasty.

Section 7th.—On the Hassan dynasty of the Deccan kingdom.

This kingdom began with HASSAN a contemporary with RÁMA-DEVA of the foregoing race. He was of humble origin. A brahman saw

him sleeping in the sun, his face shaded by the hood of a cobra-capella, and thence prognosticated his future greatness. At a time when a sovereign was wanted, and an elephant with a wreath of flowers on its trunk was deputed to fix on the proper person, the animal selected HASSAN from a multitude of people, and deposited the wreath on his head. He was in consequence chosen king.....

(In this place some palm leaves of the copy are wanting: how many cannot be determined, as the No. of the page is uniformly reckoned from the beginning of the section. Spare sheets will be left in the binding up of the restored copy, sufficient to allow of the filling in, should the deficient matter be hereafter recovered. There is so close a coincidence between the beginning of the section, and the account given by FERISHTA of the commencement of the kingdom of the *Deccan*, that possibly the whole section may only have been an abridgment of FERISHTA received by the author NARRÁYANEN from Muhammadans at *Arcot*. If so the loss is immaterial; but if otherwise, it is much to be regretted as a check on the mendacious FERISHTA is very desirable.)

Section 8.—Concerning the lower Carnátaca country.

Definitive boundaries of the *Carnatic*. The *Tónda-mandalam*, capital *Conjeveram*. The *Canara* country, capital *Seringapatam*. The *Chólo-mandalam*, capital here said to be *Chenji*, (*Ginjee*.) *Chola-desam* on the *Cauvery*, its capital *Tanjore*. To the south *Pándiya-mandalam*, capital *Madura* with *Trichinopoly*. *Sera-mandalam*, capital *Tiru-nagari*. *Kerala-desam*, capital *Ananta-sayanam*. *Telinga-desam*, capital *Kolcondai* (*Golconda*).—Revenues of those different kingdoms. The *Kerala*, *Pándiya*, *Chola*, and other *rájas* were tributaries to the royal house of *Hastinapuri*. Some notice of the incarnations of the emblems of *Vishnu* (the *Chank*, *Chakra*, &c.) in the persons of MA'BER, SADUGOPA'RVAR and others. Notice of MÁNICA, VÁSAGER and SAMPNATAR; their polemical contests with the *Samunax* (*Bauddhas* or *Jainas*). Subsequent to that time the *Vaishnava* sect experienced a depreciation, owing to the ascendancy gained by the *Saivas*. Notice of Tamil poets, COMBAN, PUGERENTAN, OTTA-CUTAN. CAMBAN composed his poetical version of the *Ramáyana* in Sal. Sac. 807. Notice of some *Chola* kings. The *Vaishnava* teacher RAMANUJA flourished Sal. Sac. 939. TRIBHUVANA CHACRAVERTI became *Suntara Paundiya dever*, Fusly 460, VIRA PANDIYA CHOLAN was his son. RAMANUJA lived in his time. (These points and dates considered as the author's testimony are very important as a check on accounts by the *Saivas*.) Notice of the first inroad made by the Muhammadans into the *Carnatic*. Many details concerning

Crimi-canda-cholan; of RAMANUJA and the Muhammadans; CARICARA CHOLAN flourished 570 Fusly. VILLIPUTTURAR, a poet in the *Conga desam*, translated the *Mahábhárata* into *Tamil* verse at the promised reward of five gold *huns* each stanza (of four lines). On his task being finished, the king gave him only five fanams each stanza. Story of NANDI a king of the *Chola* country, his hunt of a pig, which in the end became metamorphosed into a figure of *Vishnu* in the *Varáha-avatára*, a shrine was built on the spot. Origin of *Chenji* (or *Ginjee*). A treasure was discovered by one ANANTAKON a shepherd, who raised troops therewith, and getting aid from other chiefs, established himself as a *rája*, *Ginjee* being his capital; this was Fusly year 600. He cut a canal for irrigation near *Trinomali* which in the course of time having become filled up, was restored by the nabob WALLAJAH, F. 1184. ANANTAKON gave to his tribe the name of *Sammanamánar*. He was succeeded by CRISHNAKON, F. 650. GONERIKON, F. 680, both of them built sacred edifices. His son was GOVINDAKON, Fusly 700. VALLIYAKON, Fusly 720, he made roads, choultries, &c. The dynasty now gave way before a *Curumba* tribe named *Vadaga Yediar* (north country shepherds): the first king of this tribe was KOBE-LINGAN, F. 740. He built a brick fort at *Chentamangalam*. He formed some tanks, and left others unfinished. In his time, his feudatories built several forts with bricks in different places, as *Asupúr*, *Pelácupúr*, *Cupam*, *Cohir*, &c. He formed channels to bring down streams for irrigation from mountain springs; among which the one named *Kobilingan Juvi* remains to this day. He ruled with great equity. Afterwards, F. 800, NARASINGA UDIYAR became viceroy, the Maharayer of *Anacondai*, *Vijayanagaram*, and *Pennacondai* sent an army against the aforesaid KOBILINGAN, and having conquered the country he delivered it over to NARASINGA UDIYAR to be held as a fief sending tribute to the *ráyer*. A donation was made to a fane or temple, Sal. Sac. 1332 (A. D. 1410). About this time the *rája* of *Vandiwash* named BHUPATI RÁYER UDIYAR ruled according to an inscription dated in Sal. Sac. 1341. VIRA-VIJAYA RAYER was also ruler over that district. VALLÁLA RÁYER ruled, F. 750. He made additions to the shrine at *Trinomali*. He paid tribute to the *ráyer*. After he fell the country being divided among petty chiefs became subject to CRISHNA-DEVA-RAYER. He sent a great army into the *Carnatic*, said to have consisted of 100,000 men, under the command of chiefs named VAIYAPA NAYAKER, TUBÁKI, CRISHNAPA NAYAKER, VIJAYA RÁGHAVA NAYAKER, and VENKITAPA NAYAKER. In F. 870 VANYAPA NAYAKER came and collected tribute extensively. He encamped near *Vellore*. The chief at *Chittoor*, and other petty chiefs

of the *Tondamandalam* had an interview with him. He fixed their rate of tribute. Mention is made among others of *Bomma-reddi* of *Calastri*. The *ráyer's* general afterwards went to *Ginjee*. The chiefs of the *Chola-mandalam* had an interview with him, and their tribute was also settled. *VAIYAPA NAYAKER* continued at *Ginjee* with his army. He gave it in charge to the subordinate generals to go and levy tribute on the *Pandya*, *Chola*, and *Chera* kingdoms. In *Tanjore*, *Trichinopoly*, *Madura* and *Tiru-nagari*, the kings respectfully answered to the demand. Thus the eastern *Carnátaca* (as distinguished from *Mysore*, &c.) became subject to the *ráyer*. He derived three crores of rupees from this country, and in consequence he divided the whole into three parts, under three viceroys. *CRISHNAPA NAYAKER* at *Ginjee*, governed the country from *Nellore* to the river *Coleroon*; *VIJAYA RAGHAVA* at *Tanjore*, governed the fertile country washed by the *Cauvery* river; and to *VENKITAPA NAYAKER*, was assigned the country south of the latter. Notices follow of the proceedings of these viceroys. A Muhammadan coalition was formed against the *ráyer*. The principal viceroy of the latter was recalled, with his troops; and *TUBÁKI NAYAKER* thenceforward assumed independency at *Ginjee*. His successors with their dates and proceedings are mentioned. The last of them *APPA NAYAKER* is described as weak and vicious to an extreme. He came to the throne, F. 1030, and in his time a Muhammadan confederacy, the formation of which is ascribed to the treachery of *BÓMMA rája* of *Chingleput*, brought down a deluge of Muhammadan troops into the lower *Carnatic*. The siege of *Ginjee*, and its capture, after great resistance are described with considerable force and spirit, and at much length as the author is writing about his native place. The proceedings of *VIJAYA RAGHAVA* at *Tanjore* are also alluded to: he purchased peace. *TIRUMALA NAYAKER* of *Madura*, by the assistance of the *Collaries* routed and repelled the Muhammadans, who returned discomfited to *Ginjee*. Irruption of the *Mahrattas* into the country. Seizure of *Tanjore*. Tribute imposed by them on other places. Proceedings of *Sivaji* in the lower *Carnatic*. Arrival of the English at *Chennapatnam (Madras)*. Notice of other Europeans. From this time forwards, there is a minute and generally correct detail of the proceedings of the English and French in connexion with the nabob on the one part, and *CHUNDA saheb*, &c. on the other part. The French capture of *Ginjee* is circumstantially stated. The whole of the connected and subsequent transactions are interwoven with details as to motives on the part of native princes, such as perhaps our English historians, who have gone over the same ground, may not have so fully known. *HYDER ALI* and *TIPPO's* pro-

ceedings are fully described; and the commanding interest of the narrative may be considered to close with the final capture of *Seringapatam*, and its celebration at *Madras*. The author, however, continues his narrative onwards a few years later; and closes with a reference to the regulation of the *Arcot* country, and its management by his patron, Colonel W. MACLEOD, as Commissioner.

Remark.—In a general retrospect of the contents of this large manuscript, it appears that the suggestion of an English gentleman, produced that rare result a native Hindu historian, writing under the influence of good sense, and in conformity to a prevailing degree, with European notions of history. In an abstract I have not felt myself obliged to verify or compare his dates and facts with other authorities. There are probably some anachronisms and errors; but the value of the whole seems to me considerable, and the eighth section, down to the arrival of the English, invaluable. To me that matter is new, and with the incidental coincidences derivable from other papers in this collection a narrative may now be carried upwards, with some degree of certainty, to the era of CRISHNA RÁYER; above which there is only a short interval of anarchy till we reach the regular *Chola* government. The whole manuscript, but especially the first half of the eighth Section, ought, I am of opinion, to be carefully translated and edited.

Prof. WILSON's notice of this MS. (Des. Cat. Vol. I. p. 199,) is as follows:—

“XI. *Kemáta-rájakal*, *a* Palm leaves, *b* ditto, *c* ditto, *d* ditto. An account of the sovereigns of the *Carnatic*. After a short notice of YUDHISHTIRA, and his brethren, and of some Hindu princes of the lunar family, the MS. gives an account of the *Mogul* sovereigns of Hindustan, and the family of NIZAM ALI. MS. *b* is an abridgment.”

On reading this notice I went to the college, and searched for a second copy without succeeding in finding one. This copy is much injured by insects. I shall be gratified if eventually I may succeed in effecting one completely restored copy.

[*To be continued.*]

NOTE. Since the above was set up in type we have received information, that Mr. Taylor's analysis will be printed in the *Madras Journal*. This does not deter us from publication inasmuch as our readers are for the greater part distinct. On the other hand it is most remote from our wishes to be thought guilty of forestalling our brother editor. We have both a claim to the materials,—he from his connection with the place of their deposit—we from having recommended their being entrusted to Mr. Taylor for examination; and we should be thankful to him for the opportunity afforded of making widely known the result of his successful labours.—ED.



III.—*Report on the Caoutchouc Tree of Assam made at the request of Captain JENKINS, Agent to the Governor General. By WILLIAM GRIFFITH, Assistant Surgeon on deputation with the Bhotan Mission.*

[Communicated by the Government.]

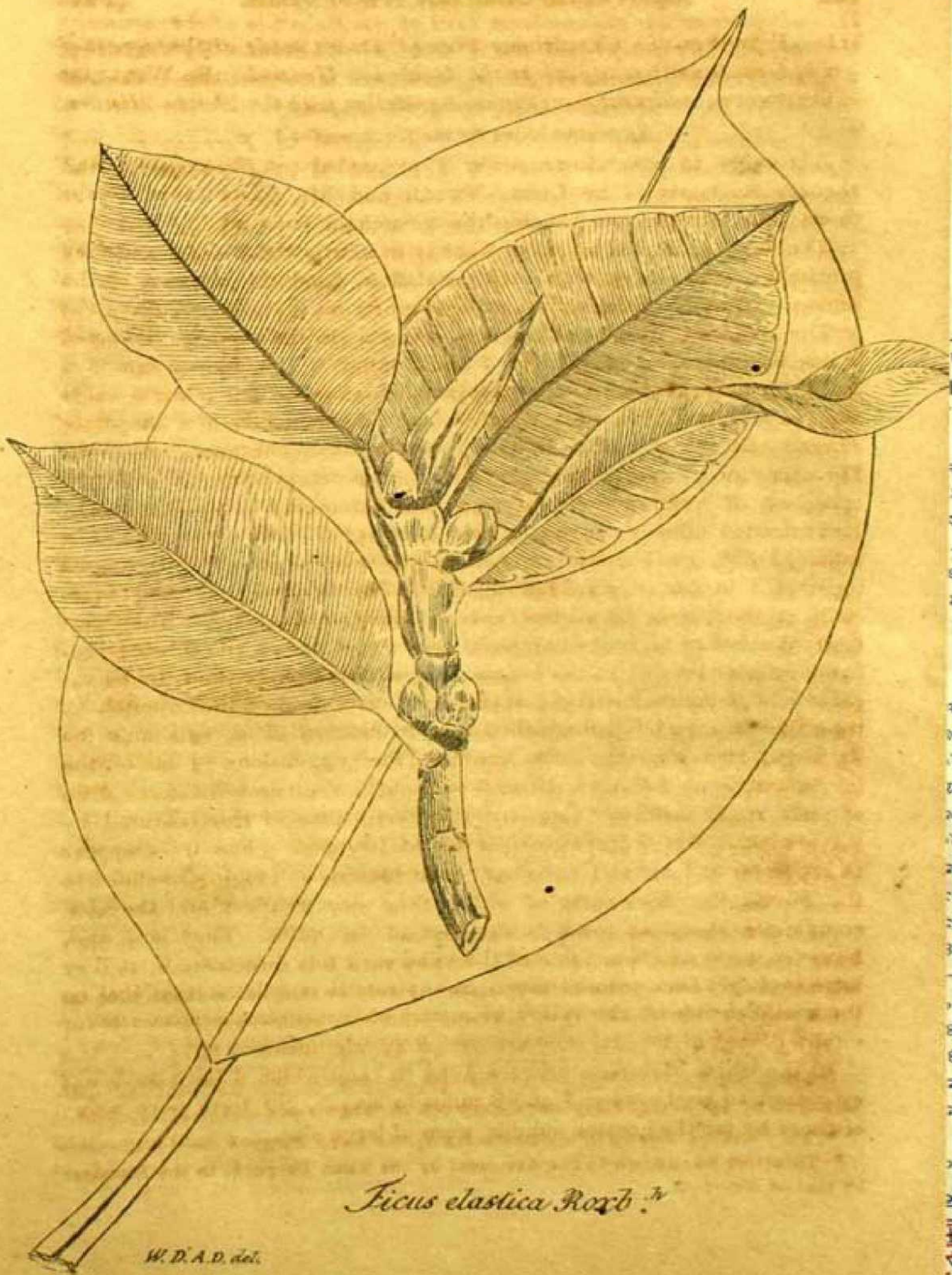
Agreeable to your instructions I proceeded to *Ferozepoor*, and thence, accompanied by Lieut. VETCH and Mr. BROWNLOW, to the forests in which the tree yielding*the caoutchouc is found.

The forests alluded to, form what is evidently the *Tarái*, and they probably extend almost without intermission, from the western to the eastern extremity of the valley, at least on its northern boundary.

The breadth of the forest tracts is variable ; in the parts we traversed it was computed to be between 7 and 8 miles. The forests are of a decidedly tropical character ; exceptions, however, to this occur towards the basis of the hills, near which some trees indicative of a temperate climate are found, such as horse and spanish chesnuts, an alder, *Hovenia dulcis*. No particularly fine timber trees occurred with the exception of a solitary chaum tree, the *Artocarpus chaplasha* of Dr. ROXBURGH. The caoutchouc tree itself occurs very generally as a solitary tree*, occasionally however two or three may be found grouped together. In size they are far superior to all the other trees, and especially in the extent of surface covered by their branches. They certainly deserve to be ranked amongst the largest known trees, being probably inferior in size to the banian only, which may be said to be capable of indefinite extension ; such is the size indeed of the caoutchouc tree, that it may be distinguished from a distance of several miles by its dense, immense, and lofty crown. The dimensions of one of the largest were as follows : circumference of main trunk 74 feet ; ditto of main trunk and the supports 120 feet ; ditto of area covered by the branches, 610 feet ; estimated height 100 feet. The trees appear to be, so far at least as I have had opportunities of judging, confined to the *Tarái*, the drier parts of which they seem to affect, and they become more abundant towards the foot of the hills. They are said, however, to occur about some of the villages in this direction ; if so, they have probably been planted there, at any rate it is quite certain that on the southern side of the valley, along which considerable spaces occur totally devoid of forests, they are comparatively uncommon.

In the tracts of forests traversed by us and which I have said was estimated to be between 7 and 8 miles in length, 80 trees were seen : of these by far the greater number were of large size.

* This tree is known to the Assamese by the name *Borgach*, to the Khasiyan by that of *Ka-gi-ri*.



Ficus elastica Roxb.

W. D. A. D. del.



several species of which grow in abundance amongst the abovementioned mountains, and contained about two gallons. Mr. SMITH observed that the inside of the vessel, was smeared over with the juice of a tree which grows on the mountains. I was therefore more anxious to examine the nature of this lining than the quality of the honey. The turong was therefore emptied and washed out, when to my gratification I found it very perfectly lined with a thin coat of caoutchouc*." Dr. ROXBURGH then mentions one or two facts, which are consonant with the views of modern vegetable physiology, viz. "that old trees afford a better and more indecomposable juice than young ones, and that during the cold season the juice is better but more scanty than in the hot. It is extracted by incisions across the bark down to the wood, at a distance of about a foot from one another, all round the trunk or branch up to the top of the tree; and the higher, the more abundant is the fluid said to be. After one operation, the same tree requires about a fortnight's rest, when it may be again repeated†." The only description hitherto given of the tree is that of Dr. ROXBURGH; it was drawn up from young specimens, but it is quite sufficient to enable one to recognise the plant. I subjoin a sketch of the only flowering branch I have hitherto met with. The roots of this really noble tree spread out in every direction on reaching the ground, and the larger ones are half uncovered: they occasionally assume the appearance of buttresses, but never to such an extent as those of some other trees. The nature of the trunk of this and some other species of the same genus is so extraordinary that it may not be amiss to make a few remarks on its structure. It differs in the first place from the ordinary form of trunk by its sculptural appearance, and it is from this that its extremely picturesque appearance arises.

The appearance arises entirely from the tendency of these trees to throw out roots both from the main trunk as well as from the branches, and from the extreme tendency these have to cohere with the trunk or with each other. If the roots are thrown out from or very near the main trunk, they ordinarily run down its surface, and cohere with it firmly and hence the sculptured appearance; if, as happens in some, they are thrown out from the branches at such a distance from the trunk that they do not come in contact with it, they pass down to the earth, and form what I call supports. These attain their maximum of developments in the banian and render the growth of the tree quite indefinite. These supports appear never to produce leaf-bearing branches, so long, at least, as they remain attached to the tree. They are generally per-

* ROXBURGH'S *Flora Indica*, Vol. III. p. 543.

† ROXBURGH'S *Flora Indica*, Vol. III. p. 544.



fectly straight at first, becoming conical only by divisions at the apex when near the earth, and by the mutual adhesion of these divisions.

Very generally, it would appear, this species, as well as some others, vegetates in other trees; its first processes of growth being probably similar to those of other arboreous dicotyledons. The roots, however in obeying the laws regulating their descent, soon come into contact, and wherever they do so, a mutual and firm adhesion is the result.

A net work is soon formed round the tree; the size of its reticulations soon diminishes with the increase in the number of roots; and at last a nearly solid and excessively firm cylinder is formed, which encloses, as it were in a case, the tree which originally protected the young seedling: to such an extent is this carried that the death of the tree is sure to occur sooner or later.

In such a case as this the fig-tree has, it may be said, no trunk at all comparable to ordinary trunks, which result from growth in an ascending direction. In these they originate from the aggregation and cohesion of roots, or from growth in a descending direction. One may hence readily imagine how easily such trees may overtop all others, for, if they vegetate on a tree 60 feet from its base, it is at once obvious that this distance is an actual gain in height over all the others. Such instances are perhaps the only ones in which epiphytes destroy the plants on which they grow. They may indeed be denominated parasitical epiphytes. As might be expected the seeds are indifferent as to the species of tree on which they vegetate: it is not uncommon to find two fig-trees entwined in a close embrace.

Dr. ROXBURGH was aware of this manner of growth, but he appears to have only seen palmyra trees enclosed in the way I have endeavoured to explain. The tendency to throw out roots is so excessive in the *Ficus elastica*, that any section through the back of the trunk or the supports of sufficient depth to reach the wooded structure, is sure to occasion their appearance. These roots or radicles are distinctly continuous with the outer fibres of the last formed wood, and so many are thrown out that the lower extremity of a transverse section of a support not unfrequently assumes the appearance of a very coarse tail. The union between the root commences by abrasion, and although I have not yet examined sections with reference to the degree of intimacy of union, I have but little doubt but that each union is an instance of true and spontaneous grafting.

The inflorescence of this tree remains to be explained, particularly as it would at first sight appear to be totally different from that of any other, and because such forms unless reduced to ordinary types, confuse



the minds of beginners. By the old school, the only one yet known on this side of India, and which even in England has too many advocates, each instance, almost, of anomalous form is at once elevated into a distinct or *sui generis* formation, as if nature in her wonderful workings had no distinct plan.

This was, and is, the great fault of the Linnæan School of Botany, and it is continually causing curious and really, at this period, quite inexcusable mistakes. If we turn over the pages of ROXBURGH's *Flora Indica*, which relate to this genus, we shall find that the fruit is described before the flower—described in fact before it can possibly exist.

That which ROXBURGH called the fruit is the inflorescence, and consists of a hollow, more or less closed receptacle, on which minute flowers of different sexes are arranged. A receptacle on which a number of flowers is situated, is by no means uncommon, and I may point out familiar instances in the thistle, artichoke, dandelion, &c. in which the receptacle may be said to be almost at its maximum of development. Frequent instances of such enlarged receptacles occur in the natural order to which the fig belongs, particularly in *Dorstenia*.

In all these the receptacle is more or less flat; were we to take one of these flat receptacles and so dispose of it, that it shall become closed except at its apex, we shall have an inflorescence similar to that of a fig, the scales found at the aperture of which are analogous to the scales visible outside the heads of the beforementioned instances, and which, as is well known, form the edible heart of the artichoke. A fig may therefore be compared with the head of a compound flower, however different it may appear at first sight to be*.

The last point I have to notice with reference to these plants, is that they are, more especially the peepul, frequently infested by some parasites†.

The juice is procured from transverse incisions made in the larger root, which I have mentioned as being half exposed. The incision reaches the wood, or even penetrates it, but the flow of the juice takes place in these instances from the bark alone.

Under the incision a hole is scooped out in the earth, in which a leaf, folded up into the shape of a rude cap, is placed; for this purpose the leaves of *Phrynium capitatum* of LINNÆUS seem to be preferred.

* A fig might be proved almost to be an artichoke.

† M. DE CANDOLLE reasoning on the supposition that no parasites existed on trees furnished with milky juice, constructed an ingenious theory, which I have long known to be invalidated in the instance of the jack-tree.



This plan is simple, and far superior to that of incising the trunk as it ensures greater cleanliness. The larger roots are preferred in addition to their being half exposed, for yielding a richer juice.

The fluid on issuing is, when good, nearly of the consistence of cream, and of a very pure white.

Its excellence is known by the degree of consistence, and the quantity of caoutchouc, on which this would appear to depend, is readily ascertained by rubbing up a few drops in the palm of the hand, when the caoutchouc rapidly becomes separated. By kneading this up again, it rapidly becomes elastic.

Many incisions are made in one tree. The juice flows rapidly at first, but the rapidity diminishes after a few minutes.

It is said to flow fastest during the night: it continues during two or three days, after which it ceases, owing to the formation of a layer of caoutchouc over the wound.

The quantity obtainable by the above method from a single tree has not yet been exactly ascertained. Some of the natives affirm that four or even five maunds may be procured; others only give one ghurrah full or ten seers as the amount procurable. From the slowness with which it flows, I should consider half a maund to be a fair average produce of each bleeding. The operation is repeated at the expiration of 18 or 20 days. Assuming the rate of half a maund to be nearly correct, 20,000 trees will give as the aggregate of four bleedings 12,000 maunds of caoutchouc, that is if Dr. ROXBURGH's proportion of this product to aqueous matter, viz. $15\frac{1}{2}$ oz. to 50, be correct.

I should however, observe that the proportion of caoutchouc in the American juice is given by Dr. FARADAY as 45 in 100*, or nearly one in two. On the excellence of the Assamese products as compared with that of America, it does not become me to pronounce. If strength, elasticity, clearness and freedom from viscidities as well as from foreign matter be test of excellence, then this product may be considered superior to any other hitherto manufactured. Nothing can in fact well exceed, at least in these points, the best specimens manufactured by Mr. SCOTT. It has been pronounced by persons resident in Calcutta to be excellent, and the only objection that has hitherto been raised against it *on sufficient examination* is that of Mr. BELL, who says it snaps. But if by this we are to understand snapping from being allowed to return to its original dimensions from the state of tension, the objection amounts to an excel-

* *Mechanic's Magazine*, 24, 440. Mr. SCOTT finds that the proportion varies from four to six parts in 10, the variation depending probably on the part of the tree from which the juice is extracted.



lence. Mr. McCOSH has indeed declared it to be inferior to the South American article, but this decisive judgment has evidently been made on casual examination of perhaps the worst possible specimens. Decisions such as these are totally inadmissible in any work, much more so in the one alluded to* which from the materials placed at the author's disposal, should at least have been correct.

On the points of comparative excellence of the two products we shall soon, it is to be hoped, be set at rest. Lieut. VETCH† has submitted numerous excellent specimens to the London Caoutchouc Company, and Mr. SCOTT and Mr. BROWNLOW are engaged on a series of experiments, which promise complete success.

It is to be hoped that samples may be sent to the Society of Arts, whose reports on all these subjects are so excellent and so readily and obligingly furnished. I think, however, it is desirable that Dr. O'SHAUGHNESSY be requested to draw up an analysis both of the Assamese and American products, as that analysis would at once set at rest the comparative amount of caoutchouc as well as of its solubility.

As this tree promises to become an important source of revenue, all possible precautions should be taken, to ensure the present stock from injury and to increase the number of trees so that the province may be able to meet any demand. With reference to the first point it will be quite sufficient to limit the bleedings to the cold months, so that during the season of the greatest activity of vegetation, the trees may remain unmolested, and this is more particularly necessary from our having reasons for supposing that the juice will be during the period alluded to much less rich in caoutchouc. I would therefore propose the interval between April 1st and November 1st as the season of rest. The size of the tree being such as to preclude any possibility of great injury resulting from the abstraction of the juice, the bleedings if indeed it be possible to limit them, may recur at intervals of one month.

The best check, however, to over-depletion will be the rigorous rejection of all over thin juice. The plan now adopted for the extraction of the juice needs no modifications, for it is simple, effectual and cleanly. For increasing the number of trees the formation of plantations will be necessary. The sites chosen for these should be both in the forests themselves as well as in and about those villages which, from being situated near the edge of the forests, may seem adapted to the end in view.

* *Medical Topography of Assam.*

† It cannot be too well known, that it is owing to the exertions of this officer that the existence of this valuable tree in abundance has been ascertained.



There is every reason for supposing that this tree presents every facility for multiplication by division, and probably the plan pursued by the natives with the peepul will be effectual for this purpose: a branch is chosen of the thickness of a man's thigh, and of a height of 15 or 20 feet; all its branches with the exception of one or two at the apex are to be lopped off clean, and the wounds to be plastered over with clay. The cutting is to be planted out at the commencement of spring, that is in March or April*.

The jangal must be cleared, but not so much so as to expose the cuttings to the full influence of the sun. It must be borne in mind that the tree is one which requires an immense space, should rearing from seed be resorted to, which however, can scarcely be necessary; it must be remembered also, that the most favorable situation for ensuring their vegetation would appear to be on other trees, and they should be so placed as not to be liable to be removed either by rain or wind. Some manure should be placed with them so as to imitate as much as possible that with which they are generally supplied by birds.

The substance, caoutchouc, is a widely disseminated constituent of vegetable fluids. It has hitherto, I believe, been found only in plants with milky juice, although its presence in all plants yielding such fluid remains to be proved. The presence of caoutchouc in silk has been, I believe, attributed to the nature of the fluids of the plants on which the caterpillars feed: but this, although applicable to the mulberry plants, can scarcely hold good with the various species of *Tetranthera* on which the Moonga feeds, or with the castor-oil plant the chief food of the *Eria*, which in *Assam* does not appear to yield milk. Milky juice is often characteristic of certain families, but often not: its presence is frequently of importance, as it often affords valuable indications of affinity. It is remarkable that it is almost unknown in the grand division of Monocotyledonous plants. The families in which its presence may be said to be universal are Apocquea, Asclepiadæa, Campanulacea, Sobelia- cea, and the great division of Compositæ, Chichoracea, of which the lettuce is a familiar example. It is of common occurrence in Euphorbiacea, and Tulicea, which orders may be looked on as the grand sources of caoutchouc. Thus, in addition to our Indian plants, the *American* caoutchouc is supposed to be produced by *Cecropia peltata* which belongs to Urticea, and the Ule tree of Papantla, from which the caoutchouc of that country is obtained, is supposed to belong to the same orders. I must, however, observe that Baron HUMBOLDT objects to the supposition of

* For this information I am indebted to Captain JENKINS.



Cecropia peltata yielding the *American* caoutchouc, as its juice is difficult to inspissate*.

The order Euphorbiacea would likewise appear to supply a large quantity. Thus Dr. LINDLY informs us that the true caoutchouc is furnished by *Siphonia elastica*, *Hevia quiancensis* of AUBLET, a Surinam and Brazilian tree; and it is from a tree of this order that a substance resembling caoutchouc is procured in Sierra Leone.

Some Apocqueæ are also reported to produce good caoutchouc†; thus *Aricola elastica* produces the caoutchouc of *Sumatra*; and it is from this plant that caoutchouc has been produced in *Penang* and exported to England‡. *Willughbeia edulis* is likewise an *Indian* plant from which caoutchouc has been produced, but ROXBURGH says it is of indifferent quality; unless I have been misled, good caoutchouc is obtained from *Nerium grandiflorum* of ROXBURGH.

It is probably equally abundant in Asclepiadea; one plant of which order *Cynanchum albiflorum* has been stated to yield it of excellent quality in *Penang*. Mr. ROYLE seems inclined to attribute the great tenacity of the fibres of some plants of both these orders to its presence, but this supposition seems to me of very doubtful accuracy§.

It is to these orders therefore, viz. Tritecia, Euphorbiacea, Apocquea, and Asclepiadea that I would beg to direct particular attention. The relative values of the various caoutchoucs is still open to investigation. The relative values of the milky juice as sources of caoutchouc depend on their freedom from viscidities, and this is very readily ascertained by rubbing up a few drops in the palm of the hand; in freedom from this material nothing can well exceed the juice of the *Ficus elastica*.

Too much attention in fact can scarcely be paid to all plants affording milky juice; as in the event of a diminution in quantity from the present sources, chemists may possibly devise some means of extracting it from those materials, which at present are disregarded. This of course, only holds good provided the assumption that the juice of all plants of a milky nature contains caoutchouc, proves correct. A historical retrospect of caoutchouc may be found in the *Mechanic's Magazine*, vol. 24, page 434. In this the opinions of Dr. ANDERSON, on the probable future extensive utility of this substance are given at length; the author however appears to consider these views as overdrawn, and

* LINDLY's Introduction to Natural system of Botany, p. 176.

† LINDLY's Instructions, p. 300.

‡ ROYLE's Illustrations, p. 329, under Euphorbiacea, and p. 270, under Apocquea.

§ ROYLE's Illustrations, p. 274.



they are so certainly, if we look to the *modus operandi* proposed by Dr. ANDERSON.

But if we look to the late improvements by which this substance is rendered tolerably manageable, we can scarcely imagine any limit to its sphere of usefulness. If it be limited, it will be owing to the fact that the supplies cannot meet the demand. It is well known that the demand for this article has called into existence the London Caoutchouc Company, and their attention appears to have been directed towards India by Mr. ROYLE (to whom this empire will very probably be under very great obligations) and to *Assam* in particular by Professor SELDEN. It is much to be wished that all communications regarding new products of value should be very explicit, for it is but seldom that in this country opinions of value are to be obtained. The plan recommended by the caoutchouc committee, viz.; that of forming the caoutchouc into bottles is perhaps the worst that could be recommended: it is bad from its great tediousness and laboriousness, bad from its causing the blackening of the caoutchouc, and bad from its not obviating the viscosity of this when exposed to the sun. And it may reasonably be asked of what possible use the form of bottles can be when the bottle is not meant to hold a solution but to become one*.

It is much to be regretted that the handsome premium proposed by this company should have been limited to caoutchouc prepared in the South American manner: the premium should have been open to any form of manufacture and limited only with reference to quality. The same plan has of course been followed by the Agri-Horticultural Society of Calcutta, with this difference that the reward is much smaller, indeed ridiculously so, when compared to the extravagant rewards allotted to other products of comparatively no value and in many cases of rather visionary attainment. In all such cases, Societies would do well to proportion the amount of rewards to the amount of value. I am not aware whether the juice itself is in demand: this is certain however, that with slight precautions it will keep for a very long time.

The presence of petroleum in abundance along the southern boundary of the valley may possibly suggest another mode of exportation, but there are it appears to me considerable objections to the exportation of this valuable substance in any other form than that now practised. In conclusion I would beg to apologize for the very imperfect nature of this report, but my means of observation have been limited, and the stock of

* The uselessness of the plan alluded to at once struck both Lieutenant VETCH and Mr. SCOTT, who were led to pay attention to the caoutchouc from the caoutchouc company's circular.

information hitherto laid before the public is certainly sufficiently scanty.

Mr. SCOTT having very obligingly furnished me with a series of specimens illustrating the relative advantages of his various modes of preparation. I have the honor of submitting them for inspection.

The numbers refer to Mr. SCOTT's extensive series of experiments, which throw much light on these important articles, and which are additionally valuable, from the readiness with which this gentleman has rendered them available to all in *Assam*.

No. 10 Juice formed into a mass without any care.

6 Juice dried upon a non-absorbing surface.

3 Juice dried upon an absorbing surface.

*9 Juice worked up in the hand, bleached in water, and subjected to a pressure of about 4 maunds to the square foot.

8 Juice worked up with the hand and not bleached.

7 Juice boiled with an equal quantity of water and subjected to a similar pressure; this has been exposed to the sun without deterioration.

5 Juice boiled in a smaller quantity of water, and subjected to the same pressure.

11 Prepared from equal parts (3 iv.) of juice and water, with $\frac{1}{2}$ oz. of diluted sulphuric acid of the *Edinburgh Pharmacopæia*: less acid, however, will destroy the coloring matter.

12 Juice prepared with concentrated sulphuric acid.

IV.—*Notices on the different systems of Buddhism, extracted from the Tibetan authorities.* By ALEXANDER CSOMA KÖRÖSI.

Sāṅgyé (སངས་རྒྱལ་: *Sangs-r,gyas*), is the generic name for expressing the Supreme Being or intelligence in the Buddhistic system. This term corresponds to the Sanskrit *Buddha*. In Tibetan it denotes the most perfect being, that is pure (or clean) from all imperfections and abounds in all good qualities.

There are three distinctions with respect to the essence, the substance or body of BUDDHA; as

1. *Dharma kāya* (ཆོས་ཀྱི་སྐུ་—*chhos-kyi-sku*); 2. *Sambhogkāya* (ལོངས་སྤྱོད་རྩ་བའི་སྐུ་—*longs-spyod-rdsogs-pahi'-sku*), and 3. *Nirmāṇkāya* (སྐུ་ལྔ་པའི་སྐུ་—*sprul-pahi-sku*). The first as the primary essence of all things, is denominated by several names; as, *A'di Buddha* (ཐོག་མའི་སངས་རྒྱལ་);—*Samanta Buddha* (ཀུན་གྱི་ཐུབ་བླ་པ་);—*Swabhāva* (རང་བྱུང་, self-produced, or self-existing; *Dharmadhātu* (ཆོས་ཀྱི་དབྱིངས་



the root of all things ; ཐུལ་པ་རྣམས་ཀྱི་ཐུལ་པ་ the Jina of Jinas ; རྩ་ཀྱི་གཞི the basis of all things ; རྩ་པ་མཁའ་མཉམ་པ་མེད existing without the three times, or without beginning and end.

To the *Sambhogkāya* belong the *Dhyāni Buddhas* of five kinds, the chief of whom is *Vairochana* (or Bèrotsana, as the Tibetians pronounce it, called by them, རྣམ་པར་སྒྲུབ་པ་མཆོད—*nam-per-snang-mtsad*: the illuminator. These are the attendants of *A'di-Buddha*.

To the third or *Nirmankāya* belong the several incarnations of Buddha. Immense is the number of such Buddhas that have appeared in former ages in the several parts of the universe. In this age (styled the happy age) the number of incarnations of Buddhas is one thousand, four of whom have appeared hitherto, and the rest are to come hereafter. Though there are mentioned many Buddhas as having appeared and having taught their doctrines, yet in the modern Buddhistic system every thing is attributed or referred to SHĀKYA, who is supposed (by the Tibetans) to have lived about one thousand years before Jesus Christ.

The different systems of Buddhism derived from India, and known now to the Tibetians are the following four.

1. *Vaibhāshika*, (བཤེ་བྲག་པ་—*byè-brag-pa*.)
2. *Sautrāntika*, (མདོ་སྡེ་པ་—*mdo-sdè-pa*.)
3. *Yogāchārya* (རྣམ་འབྲེལ་སྦྱོར་པ་ or རོམས་ཅི་མ་པ་—*nal-hbyor-spyod-pa*, or *sems-tsam-pa*).
4. *Madhyāmika* (དབུ་མ་པ་—*dvu-ma-pa*),

The first consists of four principal classes with its subdivisions. They originated with SHĀKYA's four disciples; who are called in Sanskrit, RA'HULA, KA'SHYAPA, UPA'LI, and KA'TYA'YANA.

1. RA'HULA (Tib. སྤྱ་གཙམ་ལྷོ་མ་—*sgra-gchan-hdsin*), the son of SHĀKYA. His followers were divided in four sects. They recited the Sūtra on emancipation, in Sanskrit; they affirmed the existence of all things; they wore on their religious garb from twenty-five to nine narrow pieces of cloth. The distinctive mark of this class was an *utpala padma*, (water-lily) jewel, and tree-leaf put together in the form of a nosegay*.

2. KA'SHYAPA (ཨོད་སྤྱང་—*Hod-srung*), of the brahman caste. His followers were divided into six sects. They were called the "great community." They recited the Sūtra of emancipation in a corrupt dialect. They wore on their religious garb from twenty-three to three pieces of narrow cloth; and they carried a shell or conch as a distinctive mark of their school.

* May not these notes explain the marks on our Buddhist coins?—Ed.



3. **UPA'LI** (Tib. དེ་བའ་འཁོར་—*Nyé-vár-hkhor*), of the *Súdra* tribe. His followers were divided into three sects. They recited the emancipation *Sútra* in the language of the flesh-eaters, *Pisháchika*. They wore on their religious garb from twenty-one to five pieces of narrow cloth. They carried a *sortsika* flower as a mark of their school. They were styled, "the class which is honored by many."

4. **KÁTYÁYANA** (Tib. ཀའ་ཡཱ་བུ་—*Kátyáhi-bu*), of the *Vaisya* tribe. His followers were divided into three sects; they recited the emancipation *Sútra* in the vulgar dialect. They wore the same number of narrow pieces of cloth, as the former class, and they had on their garb the figure of a wheel, as the distinctive mark of their school. They were styled: "the class that have a fixed habitation," བཞུགས་པའི་ཆ་པ་.

The followers of the *Vaibhášhika* system, in general, stand on the lowest degree of speculation. They take every thing in the scriptures in their most vulgar acceptations; they believe every thing, and will not dispute. Secondly, of the

2. *Sautrátika* school (མདོ་སྡེ་པ་—*mdo-sdé-pa*), a follower of the *Sútras*. There are two classes, the one will prove every thing by authorities contained in the scriptures, the other by arguments.

3. The third division is that of the *Yogáchárya*, (ནཱ་ལོ་ཡོ་ཤེར་པ་—*nal-hbyor-spyod-pa*, or སེམས་རྩིས་པ་—*sems-tsam-pa*.) There are counted nine subdivisions of this school. The principal works on this system are referred to **A'RYA SANGA** (འཕགས་པ་ཤེས་མེད་) in the 7th century, about of our era. There are in the *Káh-gyur* several works of his, and of his followers, explanatory of the *Yogáchárya* system. Lastly, the

4. *Madhyámika* school, (དབུ་མ་པ་—*Dvu-ma-pa*, they that keep a middle way.) This is properly the philosophical system. It originated with **NÁGÁRJUNA** (ཀུ་སྒྲུབ་—*klu-sgrub*), 400 years after the death of **SHÁKYA**. His principal disciples have been **A'RYA DEVA** and **BUDDHA PALITA**. There are in the *Stan-gyur* several works of them on the *Madhyámika* system. Some learned pandits in India have united this system with that of the *Yogáchárya*, as **BODHISATWA** (or **SHANTA RAKSHITA** has done) in the 8th century, and afterwards **ATISHA** in the 11th.

CHANDRA KI'RTI ཇཱ་ཤ་ཁྱེན་པ་, wrote a commentary on the original work of **NÁGÁRJUNA**; as also several other works introductory to, and explanatory of, the *Madhyámika* theory. In all the higher schools in Tibet these works are now the chief authorities in all controversies relating to the *Madhyámika* system.



From among the four theories above specified, only the two last are philosophical, the two first being rather dogmatical, or following implicitly scriptural authorities. According to the views of some writers, there is little difference between the *Yogáchárya* and the *Madhyámika* theories also, as some have united them; except that the former is more practical and the latter more theoretical or speculative (dealing with too many abstract terms, and minute discriminations). In the Do class of the Stan-gyur, there are many volumes containing works explanatory of both these systems. But they can be understood only by the learned, the generality of the religious persons (or the clergy) prefer to read Tantrika works, the Dulvá, and some tracts of the Do class of the Káh-gyur.

The above mentioned systems are well known to many of the learned in Tibet; but there are likewise many who are acquainted only with their names.

There is another distinction (with which the Tibetians are more familiar, and which is taken from the scriptures) with respect to the principles, on which the scriptural works are founded; that of ཐཱིན་པ་གསུམ་ Thég-pa-gsum; S. *Tri-yánam*, the three vehicles. Accordingly all Buddha scriptures are calculated for the lowest, the mean or middle, and the highest capacities; for, they contain low or vulgar, middle, and high principles to be known by such as aspire to any degree of perfection.

Some writers have used the name of "Lám-rim," degrees of way (to perfection), considering men on three different degrees of intellectual and moral capacity; as, men of little, middle, and highest capacities. Under this title there are now in Tibet (among those of the Géluk-pa sect) several manual works on the principles of the Buddhistic religion. Among these "Lám-rims" the most esteemed and the most comprehensive is that of TSONKHA-PA, a celebrated Láma, who flourished in the beginning of the fifteenth century.

According to the Lám-rim, there are three degrees of principles with respect to the theory of the Buddha faith.

1. Men of vulgar capacity must believe that there is a God, there is a future life, and that they shall therein have the fruits of their works in this life.

2. Those that are on a middle degree of intellectual and moral capacity, besides admitting the former positions, must know, that every compound thing is perishable, that there is no reality in things; that every imperfection is pain, and that deliverance from pain or bodily existence, is final happiness or beatitude.

3. Those of the highest capacities, besides the above enumerated articles, know that from the body or last object to the supreme soul,



nothing is existing by itself, neither can be said that it will continue always, or cease absolutely ; but that every thing exists by a dependent or causal connection or concatenation.

With respect to practice, those of vulgar capacity are content with the exercise of the ten virtues. Those of a middle degree, besides the fulfilling of the ten virtues, endeavour to excel in morality, meditation, and ingenuity or wisdom. Those of the highest capacities besides the former will perfectly exercise the six transcendal virtues.

With respect to their summum bonum.

The first seeing the miseries of those suffering in the bad places of transmigration ; as, in hell, *Yidáks*, and beasts, wish to be born among men, the *asurs* and the *gods*.

Those of the second class, not contented with the happiness of the former, wish for themselves only to be delivered entirely from pain and bodily existence. Lastly ; these regarding as pain, every bodily existence, in whatever region of the world it be, aspire to final emancipation, and wish to arrive at the supreme perfection, that they may become able to help others in their miseries.

Such distinction in speculative Buddhism, as that of the *Swabhāvika*, *Aishwarika*, *Kármika*, and *Yátnika* does not exist in Tibetan books (except, perhaps, among the Nyigmā-pa sect, who are said to possess yet several volumes that have not been printed in the Káh-gyur and Stan-gyur collections, but which may be found in Tibet both written and printed, among the people of that sect), although there are many works in the Stan-gyur containing materials on the several doctrines or tenets of those philosophical schools.

The ancient philosophical sects in India mentioned frequently, and partly described in the Tibetan books, especially in the Stan-gyur volumes are as follows :

1. Grangs-chen-pa (གངས་ཅན་པ་—*Sánkhya* in Sanskrit). The Buddhists have adopted much of this school. In the 33 and 34 volumes of the Do class in the Stan-gyur, there is an account of the six schools (and of others also) in ancient India.

2. Chè-prág-pá (ཅེ་བླ་པ་—*S. Vaisheshika*).

3. Rig-chet-pá (རིག་ཅེ་པ་—*S. Védantika*).

4. Shot-pá-pá (ཤེ་པ་པ་—*S. Mimánsaka*).

5. Jigten-gyáng-phen-pá (ཇིགས་ཀླུང་ཕན་པ་—*S. Lokáyata*).

6. Those that take Váng-chuk (བཟང་ཆུག་—*S. Ishwara*) for the first principle.



7. They that take Ts'hángs-pá (ཨྲངས་པ་ *Brahmá*), for the first principle.

8. They that take Khyáb-juk (ཁྱེལ་ཇུག་—S. *Vishnu*), for ditto.

9. They that take Skyes-bu (སྐེས་བུ་—S. *Parusha*), for ditto.

10. They that take gTsovo (གཏོབ་—S. *Pradhána*) for ditto.

11. They that take time (རྩལ་—S. *Kála*), for ditto.

12. The atomists or they that take rdul-phran (རྩལ་པ་—S. *Atoma*) the atoms for the first principle of the existence of the world. There are yet some others also.

The general principles of practical Buddhism with a follower of this faith in Tibet, are such as follow.

1. To take refuge only with Buddha.

2. To form in his mind the resolution of endeavouring to arrive at the highest degree of perfection, to be united with the supreme intelligence.

3. To prostrate himself before (the image of) Buddha; to adore him.

4. To bring offerings before him, such as are pleasing to any of the six senses; as, light, flowers, garlands, incenses, perfumes; all sorts of edible and drinkable things, (whether raw or prepared,) stuffs, cloths, &c. for garments and hanging ornaments.

5. To make musick, sing hymns, and utter praises on Buddha, respecting his person, doctrine, love or mercy, his perfections or attributes; his acts or performances for the benefit of all animal beings.

6. To confess one's sins with a contrite heart; to ask forgiveness of them, and to declare sincerely not to commit such afterwards.

7. To rejoice in the moral merits of all animal beings, and to wish that they may contribute them to obtain thereby final emancipation or beatitude.

8. To pray and exhort all the Buddhas that are now in the world to turn the wheel of religion (or to teach their doctrines) and not to leave soon the world, but to remain here for many ages, (*Kalpas*.)

V.—*Enumeration of Historical and Grammatical Works to be met with in Tibet. By the same.*

Works, containing historical matter, may be found, in Tibet, under the following names:

1. *Lo-gyus* (ལོ་རྒྱུས་ *lo-rgyus*), meaning annals, chronicle, history.

2. *Tam-gyut* (ཐམ་གཏུང་ *gtam-rgyud*), tradition, oral account, traditional history. (S. *A'khyánam*.)



3. *Ch'hos-jung* (ཆོས་འབྱུང་ *Ch'hos-libyung*), origin and progress (of the elements) of the (Buddhistic) religion.

4. *Tokzhot* (རྟོགས་བརྗེད་ *rtogs-brjod*), properly a judicious saying; memoir, reflections, critique, biography.

5. *Nám-thár* (རྣམ་ཐར་ *nam-thar*), properly emancipation, liberation, biography, legend.

6. *Grung* (གྲུང་ *Grungs*), a fable, fiction, fabulous history.

7. *Stan-çis* (བསྟན་འཛིན་ *Bstan-rtsis*), chronology, or calculation of some events or epochs occurring in the sacred volumes.

To the first class or "*lo-gyus*" may be referred the following works, on account of their contents being of a historical character.

1. *Máni-kábum* (མཎི་བཀའ་འབྲུག་ *má-ni-bkah-hbum*), an historical work, composed by SRONG-TSAN-GAMPO (ལྷོ་བོ་འཕྲིན་མགྱུས་པ་ SRONG-BTSAN-SGAM-PO), a celebrated king in Tibet, in the seventh century of the christian era.

2. *Pádma-thang-yik* (པདྨ་ཐང་ཡིག་ *Padma-thang-yig*) another historical work, written in the eighth or ninth century, in the time of KHRI-SRONG DE'-TSAN (ཁྱི་སྲོང་ལྷོ་བོ་འཕྲིན་མགྱུས་པ་) by an Indian guru, called in Tibetan PADMA JUNG-NE, (པདྨ་འཇུག་པ་), in Sanskrit *Padma Sambhava*.

3. *Ká-thángdé-ná* (བཀའ་ཐང་འདུ་མེ་ལྷོ་པ་), by the before mentioned guru, and by some Tibetan translators or lotsavas, in five parts, containing biographical notices of princes, queens, chief officers, pandits and lotsavas or Tibetan translators.

4. *Yik-nying* (ཡིག་ནིང་), ancient writ or chronicle, compiled by the ancient Tibetan translators.

5. *Yik-zhung-ch'hen-mo*, (ཡིག་ཅུང་ཆེན་མོ་), containing Indian history from ASOKA (འུ་ཅན་མེད་ *mya-nān-med*, in Tibetan) a king, (who lived one hundred and ten years after the death of SHÁKYA, and had his residence at *Pátaliputra* and *Dehli*) till the time of PRATITA SE'NA (in the beginning of the fourteenth century of our era).

Other historical works are known under the following titles :

6. *Ká-tsik-ch'hen-mo* (བཀའ་ཅིག་ཆེན་མོ་).

7. *Ká-ch'hem-ká-k'hol-ma* (བཀའ་ཆེན་མོ་པ་འཇུག་པ་).

8. *Gyel-rab-pag-sam-jon-shing* (རྒྱལ་ལོ་པ་དཔལ་པོ་མ་ལོ་མོ་).

9. *She-cha-rap-sal* (ཤེ་ཅ་ར་པ་ས་ལ་).

10. *Gyel rap-salvai-mélong* (རྒྱལ་ལོ་པ་ས་ལ་པོ་མོ་ལོ་མོ་).

11. *Bod-kyi-yik-ts'ang* (བོད་ཀྱི་ཡིག་ཅིང་), Tibetan records.



The twelve acts of *SUÁKYA*, by *SRONG-TSAN-GAMBO*, in the *Mani-kabum*.

The “*skyés-rabs-brgya-pa*” or one hundred new births or regenerations, by a Lama of the Karmapa sect.

There are in the *Dulva* biographical notices of several princes wealthy citizens, and other illustrious persons, in ancient India.

Amongst the Grungs (ལྷ་རྒྱུད་) or fabulous narratives, the “*Kesár Grungs*” (ཀེ་སར་རྒྱུད་) or fabulous history of *KESAR* a warlike ancient king in central Asia, is much celebrated in Tibet.

On *Stan-çis* (Br བཟུམ་རྒྱུད་) or astronomical calculations of some events or epochs, occurring in the sacred volumes or Shástras, there are likewise several works, in Tibet. Of this kind are the commentaries on the “*Kála chakra* or *dus-kyi-hk'hor-lo*,” in Tibetan, made by several learned men,—as ; by “*Bu-ston*” (བུ་སྟོན་) in the fourteenth century, by “*Jo-nang-pa*” by “*Mk'has-grub*” in the fifteenth century ; by “*Panch'-hen-blo-bzang-ch'hos-kyi-rgyel-mts'han*,” by “*Padma karmo*”—(a celebrated Lama of the Bruk-pa sect, in the sixteenth century.

Also a commentary on the *Kála chakra*, and the history of the Buddhist religion, written in Tibetan by a Mongol Lama (*Sum-bha-zhabs-trung*) in the last century.

The “*rtsis-kyi-hbyung-k'hangs*” (རྩིས་ཀྱི་འཕྲུང་རྒྱུད་) elements of calculations by “*Mk'has-grub-rgya-mts'ho*” and “*NOR-B-ZANG-rgya-mts'ho*.” The substance of these works have been embodied in the “*Baidurya, Dkarpo*” an astronomical, &c. work, written by “*SANG-RGYAS-rgya-mts'ho*,” a regent at Lassa, in the last half of the seventeenth century.

List of such Indian (or Sanskrit) grammatical works, as have been known to the ancient Tibetan learned men, and partly have been translated into Tibetan, or have been only quoted by them.

The names of these works have been collected in the last volumes of the *B,stan-gyur* compilation. They are as follows : *Páni-vyákarana*, in two thousand slókas ; *Maha-bhána*, a commentary of the former in one hundred thousand slókas, by *KLU-NOR-RGYAS-KHI-BU*—not translated. An abridgment of the two former by *RÁMA CHANDRA*.

A grammar, in twenty-four chapters, by *CHANDRA GOMI*.

A commentary on the twenty prepositive particles, by do.

A Súra on the letters, by do.

A commentary on the letters, by *CH'HO-SKYONG* (*S. Dharmapala*).

The several cases of nouns, by *CHANDRA GOMI*, in explanatory verses.



Another grammatical work, by ZLA-VA-GRAGS-PA. (S. Chandra kirtti.)

A commentary on the *Chandrapá* by Pandita RATNA MALI, in twelve thousand slókas.

A commentary on the former by Pandita PURNA CHANDRA, in thirty thousand slókas.

Doyings-ndohi-hgrel-pa, a commentary on the verbal roots, by "BYINS-KYI-DPUNG-GRYEN."

Ting-mthahi-bshad-pa: explication of the "ting" termination.

The milch-cow of desire.

The eight compositions.

The *Kalápa* in fifteen chapters, by DVANG-PHYUG-GO-CH'HA.

Sde-spyod byá-karana, in five hundred slókas, a commentary on the *Kalápa*, by brahman UGRA BHU'TI.

The "Si," &c. &c. of the *Kalápa*, explained by HJAM-DPAL-GRAGS-PA (S. Manjukirtti).

A grammatical work, introductory to every speech or language.

A commentary on the same, by a teacher: SUBHÁSHA KIRTTI.

A commentary on the twenty prepositive particles, by DVANG-PO-BYIN (S. Indradatta.)

Dyangs-chan-byákarana (of *Saraswati*) in thirty-one chapters.

Six great commentaries of the former, and several smaller ones.

ཡཾ (un) and other terminations explained in a Sûtra, by DUR-SING.

A Sûtra on the ཡཾ (un) termination, by "CHANDRA"—with a commentary by the author himself.

A Sûtra of roots in the *Kalápa* and in the *Chandrapa*, by "Gang-vahi-zla-va" (S. Púrṇa Chandra).

ཨ (ti) and other terminations of actions, &c. explained by dGah-vahi-grags-pa.

Collection of words having the same sound but different signification. *Hjam-Dvyangs* (S. Manju-ghosha) *byáakaranahi-r,tsta-va*, by SADHU-KIRTTI.

A commentary on Pánini's grammar, by RAMA CHANDRA.

Panini-byings-mdo (the roots Sûtra, of Panini), by Pandita hjigs-med-e,dé.

On the above enumerated Indian grammatical works, there are some commentaries made by the Tibetans. As; by "Bu-ston-rin-ch'hen-grub" and "Zhalu-lo-tsa-va ch'hos-sk'yong-bzang-po."

There are, likewise, in Tibet, several works teaching how to read the Sanskrit text, especially the mantras. The most common are those (both the text and the commentary on) written by "SANGHA SKRI" at *Snar-thang*. But there are others also, made by TÁRÁNÁTHA, by KUNLE'GS, by DDE'-LE'GS, and by SITUPA.

The most ancient grammatical work extant for the Tibetan language is that made by "SAMBOTA" in the seventh century. Its Tibetan name is : "*Lung-du-ston-pa-sum-chu-pa*" and "*r,Tags-kyi-Pjug-pa*" or grammatical introduction in thirty slókas, and the adding of the characteristic letters (for the formation of the several cases of nouns, &c.)

Both these treatises are very short, making not more than three or four small leaves. They give little information, and are interesting only on account of the grammatical terms. But there are now many commentaries on this original text, composed by the authors, whose names here follow, as : Dvu-pa-bLo-gsal, Lo-ch'hen-Nam-Mkhah-rgya-Mts'ho, sNar-thang-lo-tsá-Sangha-Shri, Yar-hbrog-pa-rin-ch'hen-tog, dgé-yé-vats'hul-k'brims-Sengé, Pan-ch'hen-gser-mdog-chan-pa, dpah-vo-gtsug-lag H,p'hreng-va, Zur-Mk'har-va-bLo-gros-rgyal-po, Rab-hbyams-smra-va-ch'hos-rgyal, Hol-pa-rab-hbyams, Sman-lung-pa-bLo-moh'hogrdo-rjé, Zha-lu-lo-tsá-va-ch'hos-skyong-Bzang-po, Yha-lu-pa-ch'hos-legs, Byams-gLing-Bsod-nams-rnam-r,gyal, Kun-mk'-hyen-go-ram-pa. (These two last have commented only the "*Sum-Stchu-pa*.") Zag-lung-ch'hos-rjé, Rab-hbyans-pa-jam-gral, K'ha-rag-sprul-sku, Drung-yig-hjam-Dvyangs, (these have written answers to some proposed questions respecting grammar). Pan-ch'hen-dkon-Mch'hog-ch,hos-grags, (he wrote in the seventeenth century, under this title ; "*Légs-Bshad-snang byed-norbu*" on sixty-four leaves.)

SITU, or LDOM-BU-PA of *Derghé* in *Kham-yul*, wrote in the last century, on eighty-six leaves. The title of his grammar is : "*mk'has-pahi-mgul-rgyan-mu-tig-phreng-mdses*" (a beautiful necklace of pearls for a neck ornament of the learned).

There are yet several other grammatical works on the language of Tibet.

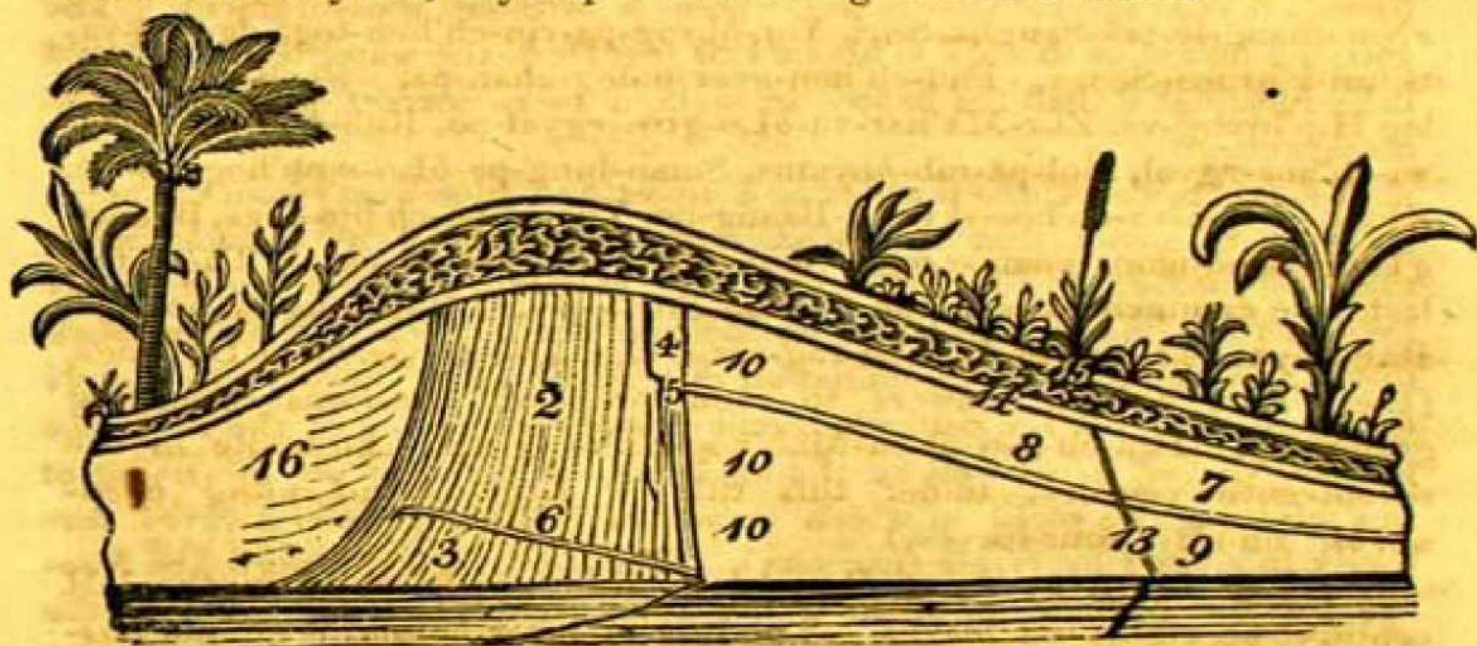
A. Cs.

VI.—*Section of a Hill in Cuttack supposed to be likely to contain Coal. By M. KITTOE, Esq.*

[In a letter addressed to J. McCLELLAND, Esq. Secretary Coal Committee.]

I have the pleasure to forward a sketch (section) of a hill called "*Newrój*," where I had expected to find coal, but have been unsuccessful ; the hill, however, presents such striking features, that I deem it worthy the notice of a geologist, and address you accordingly. I have forwarded specimens [a list of which is hereto annexed] to the Secretary of the Asiatic Society, who will deliver them to you for examination, after which I request the favour of your informing me whether or not coal is likely to be found beneath the very black slate, (marked K) ?

Also, whether it is likely to occur beneath the brown slate (J), in samples of which (obtained fourteen or fifteen feet below the surface at a village in a valley two miles inland south from *Newrij*,) I have found delicate veins of coal? Again, I should feel greatly obliged by your giving me instructions as to the nature of the rocks, beneath (or near to) which coal beds usually occur in this country? If there are any specimens available in the museum, I beg you will oblige me by forwarding some samples to me, labelled, and at the same time you will favour me with the names, &c. of the different specimens now forwarded, lettered as they are, my duplicates having the same labels.



A reply to the above at your earliest convenience will much oblige your most obedient servant.

Cuttack, Nov. 8, 1837.

(No. 1.) *A.* Laterite of Stirling, vide pp. 177-178, *As. Res.* volume, headed, on Orissa proper or Cuttack.

(2.) *B.* (3.) *C.* Upper courses of the rock just below the lower part of the rock next the water degenerating into clay.

(4.) *E.* (5.) *F.* Earth mixed with others of a yellowish hue like fuller's earth in taste and appearance, and resting between the black slate and the hard rock.

(6.) *G.* Vertical dyke between the rock and the slate imbedded in the fuller's earth.

A vein fusing through the hard rock at a right angle averaging 19 feet thick.

(7.) *H.* Yellow clay slate above the brown slate.

(8.) *I.* Brown slate, continuation of the black.

(9.) *J.* Pink slate, continuation of the brown.

(10.) *K.* Black slate of three kinds, the soft being the lowest.

(11.) *L.* Specimens of the vein which runs the whole length of the slate rocks, varying in color and thickness; average thickness 9 inches.

(12.) *M.* Piece found in the black slate.

(13.) *N.* Specimen of dyke (vertical) through the slate.

The other specimens forwarded are from *Mahánadí* and *Kutjooree*.

(1) Laterite, (2) speckled rock apparently volcanic, (3) ditto softer, (4) earth between the slate and rock, (5) dike of calcareous substance, (6) lava? (7) yellow clay slate, (8) brown slate, (9) pink slate, (10) black slate, (11) vein of various colors principally red, (13) dike through the slate, (14) marl between the rocks and the laterite, varying in thickness, (15) upper stratum of soil, (16) sandstone rock which continues for 50 or 60 miles towards *Ganjam*.

The above is merely a rough sketch to exhibit the different formations as exposed to view: the whole is without measurement. The extreme height of the hill is about 120 feet from the water level. Should it be required I shall be happy to make a more correct plan by actual measurement.

Newrój is about seven miles in a direct line (due west) from Cuttack; it is at this spot that the *Mahánadí* throwing off its branch called the *Kutjooree*, finally quits the hilly country and the great valley hence to *Burmool*. The natives look on this curious rock as the work of "SIVA" under the denomination of "*Siddhésvar*" to whom a temple (of great antiquity) is dedicated, and situated at the top of the rock, the lower story of it, as well as the enclosure or terraces are hewn out of the solid laterite rock, in which there are (besides) several caves, formerly inhabited by *rishis* (ascetics). The black rock is exported to *Poorree* for the purpose of making the "*tillak*," or frontal mark of the Hindus; the red, yellow, pink, &c. &c. are used to paint the houses in the vicinity. The sandstone does not come down to the water's edge but rests on the other rock at a short distance inland; indeed the rock washed by the river extends but a very short distance, when it joins on the range of coarse sandstone hillocks, which extend to the south towards the *Chilca* lake, including *Kandgirri*, *Kurdā*, &c. and across the *Mahánadí* from *Undharkot* on the bank, towards *Dakhannál* in a northerly direction; westerly, they extend as far as *Dhompáragarh* on the right bank, and *Barramba* on the left. The rock dipping and passing under the bed of the *Mahánadí*. Many valleys or basins are formed by these hills on both sides of the river; in some places the hillocks are but 30 or 40 feet high, the beds of sandstone being comparatively thin, of a coarse grain, resembling gritstone; it has numerous quartz pebbles of all sizes imbedded in it; it usually rests on shingle, and has a superstratum of the same kind; which again appears to rest on indurated clay slate.

Note.—By Dr. McClelland.

The hill of *Newráj* described by Mr. KITTOE in the accompanying letter, is situated seven miles in a direct line due west of *Cuttack* near the confluence of the *Kutjooree* with the *Mahánadí* at the exit of the latter from the hills; and appears from an examination of the small but interesting collection of specimens procured by Mr. KITTOE to be, as he has accurately described it, volcanic.

The centre of the hill is formed of a massive dyke (2,) thrown up from below, and consisting of a dark green trachyte of a somewhat coarse glossy character with minute vesicles containing a soft earthy matter, which is removed by exposure (6.) The lower portion of this rock (3), where it is exposed to the action of air and moisture, decays like green-stone, yielding a similar clay.

On one side of the dyke there is an abrupt abutment of sandstone (16), which forms an extensive undulating country on the west, south and north of *Newráj*; and on the other side a bed of drawing slate changing into yellow (7,) brown (8,) red (9,) and black chinks (10, 10, 10,) which might be used with advantage in the manufacture of paints and pencils. Mr. KITTOE indeed states, that the black drawing slate is exported to *Pooree* for the purpose of making the *tillak*, or frontal mark of the Hindus, and that the other kinds are used in the neighbourhood by the natives for painting their houses. I do not think that these chinks are at all inferior (especially the black) to the best kinds imported to England.

The annexed copy of Mr. KITTOE's sketch of the section of *Newráj* hill, I have made by using one of his rough geological specimens of black chalk instead of a pencil.

Between this last bed and the dyke, there is a true vein filled up apparently from above by scaly fragments of drawing slate and calcareous matter (5); this rent has evidently been formed in the centre of the hill by the elevation of the dyke from below, and some distance from this the slate is divided by a vein of a different nature (13) from the last, occasioned by the separation of the lower convex surface of the disturbed mass; this vein is composed of fragments of primary clay slate mechanically intermixed with plates of silvery mica, ingredients which must have been derived from below.

Another interesting peculiarity, and one for which it is more difficult to account in this section, is a vein of black glossy trachyte, extended obliquely from the drawing slate at the water's edge across the great dyke, dividing it nearly in a horizontal direction.



VII.—*Discovery of the name of ANTIOCHUS the Great, in two of the edicts of ASOKA, king of India.* By JAMES PRINSEP, Sec. &c.

[Read at the Meeting of the 7th March.]

As long as the study of Indian antiquities confines itself to the illustration of Indian history it must be confessed that it possesses little attraction for the general student, who is apt to regard the labour expended on the disentanglement of perplexing and contradictory mazes of fiction, as leading only to the substitution of vague and dry probabilities for poetical, albeit extravagant, fable. But the moment any name or event turns up in the course of such speculations offering a plausible point of connection between the legends of India and the rational histories of Greece or Rome,—a collision between the fortunes of an eastern and a western hero,—forthwith a speedy and spreading interest is excited which cannot be satisfied until the subject is thoroughly sifted by the examination of all the ancient works, western and eastern, that can throw concurrent light on the matter at issue. Such was the engrossing interest which attended the identification of *Sandracottus* with *Chandragupta* in the days of Sir WM. JONES: such the ardour with which the Sanskrit was studied, and is still studied, by philologists at home after it was discovered to bear an intimate relation to the classical languages of ancient Europe. Such more recently has been the curiosity excited, on Mr. TURNOUR'S throwing open the hitherto sealed page of the Buddhist historians to the development of Indian monuments and Pauranic records.

The discovery I was myself so fortunate as to make, last year, of the alphabet of the *Delhi* pillar inscription, led immediately to results of hardly less consideration to the learned world. Dr. MILL regarded these inscriptions as *all but certainly demonstrated* relics of the classical periods of Indian literature. This slight remainder of doubt has been since removed by the identification of PIYADASI as ASOKA, which we also owe to Mr. TURNOUR'S successful researches; and, dating from an epoch thus happily achieved, we have since succeeded in tracing the name of the grandson of the same king, DASARATHA, at *Gaya* in the same old character; and the names of NANDA and AIRLAS, and perhaps VIJAYA in the *Kalinga* caves: while on Bactrian coins we have been rewarded with finding the purely Greek names of AGATHOCLES and PANTALEON, faithfully rendered in the same ancient alphabet of the Hindus.

I have now to bring to the notice of the Society another link of the same chain of discovery, which will, if I do not deceive myself, create a

yet stronger degree of general interest in the labours, and of confidence in the deductions, of our antiquarian members than any that has preceded it. I feel it so impossible to keep this highly singular discovery to myself that I risk the imputation (which has been not unjustly cast upon me in the course of my late undigested disclosures) of bringing it forward in a very immature shape, and perhaps of hereafter being obliged to retract a portion of what I advance. Yet neither in this, nor in any former communication to the Society, have I to fear any material alteration in their general bearing, though improvements in reading and translation must of course be expected as I become more familiar with characters and dialects unknown for ages past even to the natives themselves, and entirely new to my own study.

A year ago, as the Society will remember, Mr. W. H. WATHEN, of *Bombay*, kindly sent me a reduced copy of the facsimiles of the inscriptions on a rock at *Girnar* (*Girinagara*) near *Junagarh* in *Gujerat*, which had been taken on cloth by the Rev. Dr. WILSON, president of the *Bombay* Literary Society. He also sent a copy to M. JACQUET of *Paris*, which I dare say before this has been turned to good account.

After completing the reading of the pillar inscriptions, my attention was naturally turned to these in the same character from the west of India, but I soon found that the copy sent was not sufficiently well done to be thoroughly made out; and I accordingly requested Mr. WILSON to favor me with the facsimile itself, which with the most liberal frankness he immediately sent round under a careful hand by sea. Meanwhile Lieut. KITTOE had, as you are also aware, made the important discovery of a long series of inscriptions in the same character at a place called *Dhaulti*, in *Cuttack*. These were in so mutilated a state that I almost despaired of being able to sift their contents; and they were put aside, at any rate until the more promising portion of my labour should be accomplished.

I had just groped my way through the *Girnar* text, which proved to be, like that of the pillars, a series of edicts promulgated by ASOKA, but essentially different both in language and in purport; when I took up the *Cuttack* inscriptions of which Lieut. KITTOE had been engaged in making a lithographic copy for my journal. To my surprise and joy I discovered that the greater part of these inscriptions (all indeed save the first and last paragraphs which were enclosed in distinguishing frames), was identical with the inscription at *Girnar*! And thus as I had had five copies of the pillar inscription to collate together for a correct text, a most extraordinary chance had now thrown before me *two* copies of the rock edicts to aid me in a similar task! There was however

[illegible]



The same in Roman character, with the Dhauli copy interlined.*

Savata vijitemhi devánampiyasa Piyadasino raṇo, evama-
Savata vimitamsi devánampiyasa Piyadasine.....
 pápavantesu, yathá Choḍa, Piḍa, Satiyaputo, Ketaleputo,

 á-Tambapañṇi, ANTIYAKO YONA rájaye vápi (tasa
 ANTIYOKE náma YONA lájaya vápi (...sa
 ANTIYAKASA sámino rájáno), savata devánampiyasa Piya-
Antiyakasa sámantá lájáne) savata devánampiyasa Piya-
 dasino raṇo dwe chikíchhá katá ;—manusa chikíchhá cha pasu
dasinechiki.....
 chikíchhá cha : osudhání cha, yáni manusopagáni cha paso-
cha..... dháni áni muniso.....ni pasu
 pagáni cha. Yata yata násti, savata párapítáni cha
 opogánáni cha ata—tá nathi, sa..... pálapitá
 ropápitáni cha ; múláni cha phaláni cha ; yata yata násti,
 lopapitá cha : mú... ..
 savata hárapitáni cha ropápitáni cha. Pathesu kúpá
vata hálopitá cha, lopápitá cha. ma (gesu) udapanáni
 cha khánápitá ; vachhá cha ropapitá ; pari bhogáya
cha khánápitáni, lukháni cha lopapitáni paṭi bhogáya
 pasu manusánam.
p.....ánam.

Translation.

“ Everywhere within the conquered provinces of rája PIYADASI the beloved of the gods, as well as in the parts occupied by the faithful, such as *Chola, Piḍa, Satiyaputra*, and *Ketalaputra*, even as far as *Tambapañṇi (Ceylon)*—and moreover within the dominions of ANTIOCHUS the Greek, (of which ANTIOCHUS’ generals are the rulers,)—everywhere the heaven-beloved rája PIYADASI’S double system of medical aid is established ;—both medical aid for men, and medical aid for animals : together with medicaments of all sorts, which are suitable for men, and suitable for animals. And wherever there is not (such provision)—in all such places they are to be prepared, and to be planted : both root-drugs, and herbs, wheresoever there is not (a provision of them) in all such places shall they be deposited and planted.

And in the public highways wells are to be dug, and trees to be planted, for the accommodation of men and animals.”

* I reserve the lithographed facsimile until next month.

Many things are deserving of comment in this short edict. To begin in due order ;—

The opening words which are equally well preserved in both the *Girnar* and the *Dhauhi* inscriptions, will be remarked to differ, in the two examples, only in a single letter (disregarding of course the variation of the inflection, which we shall see by and by to be peculiar to the dialect of each place, and constant throughout) ;—the former text reads *Savata vijitamhi* equivalent to the Sanskrit *savatra vijite*, ‘every where in the conquered (country)’ whereas the latter has *savata vimatamsi* (S. *vimate*) throughout the inimical (in religion) country*. This difference is inconsiderable ; and both expressions will contrast equally well with *apāpavantesu* (S. *apāpavatsu*) ‘in the sinless-like,’ or ‘the provinces containing the believers.’ Of the places enumerated as belonging to the latter division, unfortunately one list only is preserved, and we are unable to identify any of their names with certainty, except the last. *Choda* may indeed be the *Chola* kingdom, and *Piḍa* the country named in the *Brahmanda Purāna*†, as *Pidika* in the same list with *Chūlica* : but in what part of India situated does not very clearly appear. *Satyopūto* and *Ketalaputo* are equally unknown ; unless the latter be *Ketorapuri* of WILFORD—*hod. Tahneswar*. The former seems rather an epithet of some ‘holy city’ of the time. Our only certain landmark then is *Tambapanni*, the ancient name of *Ceylon*, spelt exactly in the same manner as in the Pāli text of the *Mahāvamsa* just published by Mr. TURNOUR. The Greek name of this island, *Taprobane*, as Dr. MILL has elsewhere observed‡, seems rather to be taken from the Sanskrit *Tamra-pāni*, which is also the true *Singhalese* name for the same place.

But the principal fact which arrests attention in this very curious proclamation, is its allusion to ANTIOCHUS the *Yona*, (Sanskrit *Yavana*) or Greek, king. The name occurs four times over, with only one variation in the spelling, where in lieu of *Antiyako* we have *Antiyoko*, a still nearer approach to the Greek. The final *o* is the regular *Pali* conversion of the Sanskrit nominative masculine termination *as*, or the Greek *os*. In the pillar dialect the *visarga* of the Sanskrit is replaced by the vowel *e*, as we see in the interlined reading, *Antiyake*. Again the interposition of the semivowel *y* between the two Greek vowels *i* and *o*, is exactly what I had occasion to observe in the writing of the words *Agathuklayoj* and *Pantalawanta* for *Αγαθοκλεως* and *πανταλεωντος* on the coins. All this evidence would of itself bias my choice to—

* While correcting the press, I received a revision of the Cuttack inscription, by Mr. KITTOX, in which the word is plainly *vijitamsi*.

† As. Res. VIII. 336.

‡ Journal As. Soc. Vol. V. 830.



wards the reading adopted, even were it possible to propose any other; but although I have placed the sentence, exactly transcribed in the Devanāgarī character, in the pandit's hand; he could not, without the alteration of very many letters, convert it to any other meaning, however strained. And were there still any doubt at all in my mind, it would be removed by the testimony of the *Cuttack* version which introduces between *Antiyake* and *Yona* the word *nāma*,—making the precise sense ‘the Yona rāja by name ANTIOCHUS.’

Having then, I trust, established the existence of a genuine Greek name in an authentic Indian edict, let us turn to the histories of the period and ascertain who he may be, and how far the circumstance tallies with the Grecian and Persian records of these ancient times.

The age of ASOKA, as fixed by the Buddhist annals falls close after the invasion of ALEXANDER the Great, but when adjusted by the established epoch of CHANDRAGUPTA, it coalesces with the flourishing period of Bactrian independence.

The name of ANTIOCHUS occurs solely in the Seleucidan dynasty which enjoyed supremacy over the whole extent of the Macedonian conquests, until the satraps of Persia and higher Asia threw off the Syrian yoke, and assumed to themselves the regal title. It was to re-establish his sway over the revolted provinces that ANTIOCHUS the Great in the third century before Christ, conducted an extended campaign in *Bactria*, which ended in an accommodation with EUTHYDEMUS whereby he was permitted to hold the regal title. The Bactrian king consented probably to be tributary to ANTIOCHUS, for the treaty was ratified by the surrender of all EUTHYDEMUS' elephants to ANTIOCHUS; who, on his side, cemented the alliance by granting his daughter in marriage to the handsome DEMETRIUS, EUTHYDEMUS's son. This memorable event is fixed by BAYER in the year 205 B. C.

“In the reign of ANTIOCHUS the Great,” says MAURICE, “the affairs of India again become conspicuously prominent in the page of Asiatic history.” POLYBIUS informs us that subsequently to the settlement of *Bactria*, this monarch led his army over the Indian Caucasus, and entered India, where he paid a visit to, and *renewed his alliance** with SOPHAGASENES, king of that country, and received likewise his elephants, which with those he had from EUTHYDEMUS amounted now

* The treaty thus *renewed*, may have been that entered into between SELEUCUS and SANDRACOTTUS. Alluding to the obscure origin of this prince JUSTINUS says, “By such a tenure of rule was it that SANDRACOTTUS acquired India at the time SELEUCUS was laying the foundations of his future greatness, and the latter *having concluded a league with him*, and settled his affairs in the east came down and joined the war against ANTIGONUS.” L. XV. C. 4.

to a hundred and fifty*; he then recrossed the *Indus* and returned homeward through *Arachosia*, *Drangiana*, and *Carmania*, settling in all those countries due order and discipline. "The boldness of his attempts and the wisdom of his conduct during the whole course of this long war, gained him the reputation of a wise and valiant prince, so that his name became formidable to all Europe as well as Asia, and well deserved the addition of 'Great' which was given him†."

In all, save the name of the Indian monarch, do these circumstances agree with the terms of our inscription. We may readily imagine it to have been a provision in the treaty, that the Buddhist king of India should be allowed to establish his religious and humane regulations among those of the same faith who resided under the rule of *ANTIOCHUS*' generals, that is, in *Bactria* and perhaps *Sinde*. We see an acknowledgment of fealty to him in the very wording of the sentence, and it is curious that, while the *Cuttack* inscription calls the Greek princes, *Sámantá* his generals—the other edict names them *Swámino* ‡, 'lords.'

With regard to the name of *Sophagasena* I should not have much hesitation in asserting that it was a palpable corruption of *Asoka sinha* or *sena*, the first two syllables transposed§,—but that I am saved the trouble by that more daring etymologist Col. WILFORD, who long ago pronounced *Sophagasena* to be nothing more than *Sivaca-sena*, a term equivalent to *Asoca-sena*, 'one whose army is clement,'—and which was another name for *ASOCA-VERDDHANA* the third in descent from *CHANDRAGUPTA* in the Pauranic lists ||.

Mr. TURNOUR fixes the date of *ASOKA*'s accession in B. C. 247, or 62 years subsequent to *CHANDRAGUPTA*, the cotemporary of *SELEUCUS*. Many of his edicts are dated in his 28th year, that is in B. C. 219, or six years after *ANTIOCHUS* the Great had mounted the throne. The medical edict is not absolutely dated; we however perceive that there can be no positive anachronism to oppose the conclusions to which other powerful considerations would lead.

* The words of *POLYBIUS* are:—ὑπερβαλὼνδε τον Καύκασον, και κατάρας εἰς την Ἰνδικήν, τήν του φίλιαν ἀνενεώσατο τήν προς Σοφαγασήνον τον βασιλέα των Ἰνδῶν, καί λαβὼν ἐλέφαντας, ὥσε γενέσθαι τοὺς ἅπαντας εἰς ἑκατὸν καὶ πεντήκοντα, ἔτι δε σιτομετρήσας πάλιν ἐνταῦθα τήν δύναμιν, αὐτὸς μὲν ἀνέξεν μετὰ της στρατίας. Ἀνδρυσθένη δε τον Κυζικηνδὸν ἐπὶ τῆς ἀνακομιδῆς ἀπέλιπε τῆς γαζης, τα ὁμολογηθείσης αὐτῷ παρὰ τοῦ βασιλέως. *Pol. Histor. lib. xi.*

† *Universal History*, vol. VIII. p. 157.

‡ The last letter is however doubtful (more resembling *pham*) and I feel very certain that re-examination will prove the reading to be *Sámantá*.

§ Just as the natives persist in calling *OCHTERLONY*, *Loni-akter*;—many such whimsical perversions might be quoted.

|| *Asiatic Researches*, V. 286.

But the subject of elucidation is not exhausted here. The Persian historians have yet to be examined; and their account of this eventful period may be gathered, from FERISHTA'S words, to have been copied not from the Greeks, but from native authorities now no longer extant.

"SINSARCHAND* assumed the imperial dignity after the death of PHOOR, and in a short time regulated the discomposed concerns of the empire. He neglected not in the mean time to remit the customary tribute to the *Grecian captains*, who possessed Persia under and after the death of ALEXANDER. SINSARCHAND and his son possessed the empire of India *seventy years*. When the grandson of SINSARCHAND acceded to the throne, a prince named JONA, who is said to have been a grand nephew of PHOOR, though that circumstance is not well attested, aspiring to the throne, rose in arms against the reigning prince and deposed him†."

* MAURICE'S *Modern Hindustan*, vol. I. 65—*Sinsār-chand* is just as much of a Sanskrit name as CHANDRAGUPTA, and nearly of the same import; viz. संसारचन्द्र *Sansāra-chandra*, 'moon of the world.'

† The whole passage in Ferishta is not too long to be extracted, that it may be consulted in the original. The Society's copy however differs from that translated in the above quotation from Maurice in the substitution of other names for those of the *Greek captains*.

سنسار چند نامی زمام حکومت هندوستان بکف آورده در اندک مدتی تمام هندوستان را که برهم خورده بود مصفا ساخت و چون کشته شدن فور را بچشم خود مشاهده نموده بود از ترس هر ساله پیشکش پیدش از طلب برای کو درز و ترسی که دران ایام سلطنت ایران داشتند میفرستاد و بعد از آنکه هفتاد سال از سلطنتش سپری شده بود جونه نامی خروج کرده استیلا یافت *

خروج راجه جونه بعضی برانند که جونه خواهر زاده فور است چون بر تخت برآمد افعال حمید و خصال پسندیده ظاهر گردانید و در معنای مملکت کوشیده در کردار بحرگشت و چمنه قریات و قصبات احداث فرمود و در عدل داد سعی بلیغ بجا آورد و به اردشیر بابکان معاصر بود سالی که اردشیر قصد تسخیر هند نموده تا حوالی سرهند آمد جونه مضطر گشته بخدمت وی شتافت و زرو جواهر بسیار و فیالان ازدها کردار پیشکش کرده بر گردانید و خود بقنوج بر گشته مدتها بر بستر استراحت تکیه داشت بعد از نود سال رخت هستی بر بستر بیست و دو بسر زوی ماند و اندک ابر کلیان چند جانشین شد *

ARDESHER BABEGA'N, began to reign A. D. 223. There is an anachronism therefore of near 500 years in this account! The name of KALIANCHAND is

Now it is not by any means improbable that the JONA (or *Yona*) here introduced as a rival to ASOKA, may be the identical *Yona rája*, mentioned in the edict before us, or in other words, ANTIOCHUS himself; although it is certainly true that the Persian historian goes on to give a circumstantial account of his reigning at *Canauj* for a long time, with indefatigable attention to the police of the country and the peopling and cultivation of the waste tracts of Hindustan! YONA is placed 260 years before CHRIST, and is stated to have made a present of elephants and a vast quantity of gold and jewels to ARDESHIR, who claimed tribute from the empire of India. This seems to be, *mutato nomine*, a repetition of the story given by POLYBIUS, for, independently of the anachronism, it is hardly probable that the Arsacidæ, themselves tributary to *Syria*, should have yet mustered courage to exact the like respect from their powerful neighbours.

I think the edict furnishes a satisfactory solution of the difficulty, by enabling us to erase *Yona* from the Indian list, and to transfer him either to *Syria* or to some principality of the Bactrian Greeks who are acknowledged to have held sway in the upper part of India.

As for the Pauranic histories of the Hindus, all I need say is, that if any thing can tend to persuade the brahmanical pandits of the erroneous basis on which their chronology rests, and the necessity of seeking its explanation (which I do not deem at all impossible) it will be this discovery of a coincidence between our histories and these sculptured monuments in their own language, which cannot have been tampered with, and cannot be suspected of giving false testimony on such a matter.

The best accounts however of the early occurrences of Indian history are to be sought in the Buddhist annals. Let us see what light they throw on the term *Yona*.

In Mr. TURNOUR's introduction to the *Moháwanso* (which I have only this moment seen through the kindness of Dr. BLAND of the Wolf) I find these words: "In regard to the geographical identification of the *Yona* country, I am of opinion that we shall have to abandon past speculations on the similarity of the names "*Yona*" and "*Yavana*," and the consequent inference that the *Yavanas* were the Greeks of Bactriana;—as *yona* is stated to be mentioned long anterior to ALEXANDER's invasion in the ancient Páli works. The term in that case can have no connection with the Greeks." Now on turning to the only two passages indicated in the glossary; I find that the first relates to the unknown in the *Puranas*:—neither are *Koderz* and *Terasi*, known as kings of Persia of that period. The former resembles much the *Kodes* of our Bactrian coins: the latter may be *Tiridates* (B. C. 253).



deputation by ASOKA himself of a missionary named MAHA'RAKKHITO to effect the conversion of the Yona country, while MAJJHANTIKO goes to Kásmira and Gandhára, and others to various places.

The other passage cited (page 171) occurs in an elaborate and most circumstantial account of the erection of the *Maháthupa*, or great tope, at *Ruanwelli*, by DUTTHAGAMINI king of Ceylon, in the year 157 B. C. Among the priests who resort to Ceylon to assist at its consecration are the following from Upper India—for the passage is so interesting to us Indians who are nearly in the dark as to those periods, that I cannot refrain from extracting it entire :

“*Nánádesápi aganchhun bahawó bhikkhawó idha :
Idhadipattisanghassa kákatháwa idhágama ?
Therásiti sahasáni bhikkhú ádáyá ágamá
Rájágahassa sámantá Indagutto mahágani.
Sahasán Isipataná Bhikkhunay diwádasádya
Dhammaseno maháthéro chetiyattthánamágama.
Sattthin bhikkhusahasáni ádáyá iddhamágama
Piyadassi maháthéro Jetarámawiháráto.
Wesálimaháwanato thérору Buddharakkhito
Atthásasahasáni bhikkhu ádáyá ágamá.
Kosambighosítárámo thérору dhammarakkhito
Tinsa bhikkhusahasáni ádáyá idhamágama.
Ádáyá Yujjeníyan théro Dakkhinagiritó
Yati chattárisahasáni ágoru Dhammarakkhito
Bhikkhunay satahasasánan satti-sahasani chádiya.
Pupphapure sókaramá thero mittinnanámako.
Duwe satahasasáni sahasáni cha sattihiha,
Bhikkhu Pallawabhogamhá mahadewo mahámati.
Yónanaggar álasanna Yona maháddhammarakkhito
Théro sattihsahasasáni bhikkhu ádáyá ágamá.
Winjhá tawluwatániyá senásanútu uttaro.
Thero satti sahasasáni bhikkhu ádáyá ágamá.
Chittagutto maháthéro Bodhimanya wiháráto
Tinsa bhikkhusahasasáni ádiyitwá idhágama.
Chandagutto maháthéro wanawásapadesalo,
A'gásiti sahasasáni ádiyetwá yati idha.
Suriyagutto maháthéro kélásamaháwiháráto
Chhanawati sahasani bhikkhu ádáyá ágamá.”*

“ From various foreign countries many priests repaired thither. Who will be able to render an account of the priests of the island who assembled here? The profound teacher INDAGUTTO, a sojourner in the vicinity of *Rájagaha*, attended, accompanied by eight thousand theros. The mahá théro DHAMMASENO, bringing with him twelve thousand from the fraternity of the *Isipattana* temple (near *Bārānesi*), repaired to the site of the *thúpo*. The mahá théro PIYADASSI from the *jeto wiháro* (near *Sáwatthipura*) attended, bringing with him sixty thousand priests. The théro BUDDHARAKKHITO attended from the *Mahawanno wiháro* of *Wésali*, bringing eight thousand priests. The chief théro DHAMMARAKKHITO, attended from the *Ghosítá* temple of *Kósambhá*, bringing thirty thousand priests with him. The chief théro DHAMMARAKKHITO, bringing forty thousand disciples from *Dakkhinágiri* temple of *Ujjéni*, also attended. The théro named MITTINNO, bringing sixty thousand priests from his fraternity of one hundred thousand at the *Asóko* temple at *Pupphapura*. The théro RETTINNO, bringing from the *Kásmira* country two hundred and eighty thousand priests. The great sage MAHADEWO with fourteen laics and sixty thousand priests from *Pallawabhágo*; and mahá DHAMMARAKKHITO, théro of *Yona*, accompanied by thirty thousand priests from the vicinity of *A'lasaddá*, the capital of the *Yóna* country, attended. The théro UTTARO attended accompanied by sixty thousand priests from the *Uttania* temple in the wilderness of *Winjha*. The mahá théro CHITTAGUTTO repaired hither, attended by thirty thousand priests from the *Boddhimando*. The mahá théro CHANDAGUTTO repaired hither, attended by eighty thousand priests from the *Wanawásó* country. The mahá théro SURIAGUTTO attended, accompanied by ninety-six thousand priests from the *Kélaso wiháro*.”

'The vicinity of *A'lasaddá* (in the text *A'lasanná*, but corrected in the errata) the capital of the *Yona* country'—follows, in this enumeration, the mention of *Kásmir*, while it precedes the wilderness of *Vinjha* which is evidently *Vindravan*, the modern *Bindrabund*. In situation then as well as in date I see nothing here to oppose the understanding of *Yona* as the Greek dominion of *Bactria* and the *Panjáb*, and I dare even further propose that the name of the capital near which the Buddhist monastery was situated, and which Mr. TURNOUR states in his glossary to be unidentified, is merely a corruption of *Alexandria*, the right reading being perhaps *A'lasanda*, halfway between the authorities of the Páli 'variorum.' Thus in lieu of finding any difficulty in regard to the use of the term *Yona* by oriental authors, we perceive them all rather to admit the interpretation which the sagacity of our antiquarians had long since suggested, but which could only be thoroughly confirmed by such an incontrovertible testimony as it has now fallen to my lot to bring to notice. The particular *Alexandria* alluded to may probably be that *ad calcem Caucasi* which is placed at *Beghram* by Mr. MASSON in the 5th volume of my Journal, and in the neighbourhood of which so many stupendous *stupas* have been brought to light through his able investigations.

The purport of the edict thus promulgated to the subjects of the Indian monarch and of his Greek ally, now merits a few observations.

I have said that its object was to establish a system of medical administration. The word *chikichha* is the regular Páli form of the Sanskrit *chikitsa* (चिकित्सा), the administration of medicine, or healing. In fact a medical service seems to have been instituted and supported at the expense of the state, with depôts of the herbs and drugs then, and still, used as remedies by Indian practitioners. The term *osudháni*, (Sans. *aushadháni* औषधानि,) according to WILSON, may even comprehend mineral as well as vegetable medicaments, and it may possibly be thus used in contradistinction to *muláni* and *phaláni*.

In reading the particular allusion to a *separate* system of treatment for animals, one is reminded of that remarkable institution at *Surat* usually called the Banyan hospital, which has been so frequently described by European visitors of the last century. If proper inquiry were directed to this building, I dare say it would be discovered to be a living example, (the only one that has braved twenty centuries,)—of the humane acts of ASOKA, recorded at no great distance on a rock in *Gujerat*.—"This hospital consisted of a large piece of ground enclosed by high walls and subdivided into several courts or wards for the accommodation of animals. In sickness they

were attended with the greatest care, and here found a peaceful asylum for the infirmities of old age. When an animal broke a limb or was otherwise disabled, his owner brought him to this hospital, where he was received *without regard to the caste or nation of his master*. In 1772, it contained horses, mules, oxen, sheep, goats, monkeys, poultry, pigeons, and a variety of birds, also an aged tortoise which was known to have been there 75 years. The most extraordinary ward was that appropriated for rats, mice, bugs, and other noxious vermin, for whom suitable food was provided." (*Ham. Hindostan*, I. 718.)

The order for digging wells and planting trees along the sides of the high roads in this edict, is of a similar nature with, but rather more laconic than that on the Ferôz lâth, which it may be remembered, specified that the wells were to be half a coss apart, and the trees to be of the mango species: besides which there were to be serais and villages—a provision which seems pointed at in the passage quoted from FERISHTA, about SINSARCHAND'S successor "establishing towns and villages along the *Ganges* and *Jumna*."

The word used for wells at *Girnar* is *kupî*, pure Sanskrit:—at *Dhaoli* it is *udapanîni* as on the pillars,—and so for road, one uses *patha*,—the other *maga* (*S. marga*) as on the pillars;—and in the same manner one dialect employs *manusdnam* the other *munisdnam*, 'of men;' but of this and other idiomatical peculiarities I shall hereafter have more to say when I shall have presented the remainder of these most interesting relics of antiquity to the Society's notice; fearing that I have almost transgressed the bounds of their patience in the observations to which I have been led by the one selected for my theme on the present occasion.

VIII.—Proceedings of the Asiatic Society.

Wednesday evening, the 7th Feb. 1838.

The Hon'ble Sir EDWARD RYAN, President, in the chair.

CHARLES FRASER, Esq., M. C. OMMANEV, Esq., Dr. W. H. GREEN, and Lieut. A. BIGGE, Asst. to the Gov. Genl.'s Agent in Assam, proposed at the last meeting were ballotted for and duly elected members of the Society.

Dr. HENRY HARPUR SPRY, was proposed by Col. McLEOD, seconded by the Secretary.

Read a letter from Capt. ROBERT SHORTREDE, Acting Secretary of the Bombay Branch of the Royal Asiatic Society, acknowledging the receipt of the 3rd volume of the *Mahâbhârata*.

Also, a letter from MANSUR AHMED, thanking the Society for the copy of *Khazanat ul Ilm*, presented to him for having edited that work gratuitously to its completion, but declining the other copies offered him and requesting in lieu thereof, such volumes of the *Alemgiri* series as could be spared. Resolved to present him with the 3rd, 4th, 5th and last volumes.

Library.

Read a letter from M. E. DOLLFUS, President of Société Industrielle of Mulhausen in Alsace, forwarding for presentation the following books, and soliciting an exchange of publications with the Society.

Bulletin de la Société Industrielle de Mulhausen, vol. X.

Exposition des produits de l'Industrie Alsacienne organisée par la Société Industrielle de Mulhausen—for May 1836.

Rapport Annuel for 1836-37.

The following books were also presented.

Wellesley Dispatches, vol. V—presented by the Hon'ble Government of India.

An account of the manufacture of the black tea as now practised at Sadiya in Upper Assam, by G. A. BRUCE, Superintendent of tea culture—by the Tea Committee, through Dr. N. Wallich.

The Pooranic, Siddhantic and Copernican systems of the world compared; by SOOBAJEE BAPOO of Lohore near Bhopal, in Malwa, printed in Telinga at Madras—presented by L. WILKINSON, Esq.

Indian Journal of Medical and Physical Science, for March 1838—by the Editor.

Resala Aruza Farsi, by SYED KERAMUT ALI—by the Author.

Tasfrul Osul, by MAULAVI ABDUL MOJID—by the Author.

Meteorological Register, for January 1838—by the Surveyor General.

Antiquities.

Capt. A. CUNNINGHAM forwarded impressions of inscriptions from the neighbourhood of *Juanpoor*.

Capt. W. BROWN, forwarded a notice, and drawings of the ancient pillar, at *Hissar*.

[We shall hasten to insert this note, but the remains of letters on the lower part of the shaft, do not appear sufficiently well defined to be pronounced of the Asoka alphabet.]

The Secretary submitted the following question addressed to himself by a friend under the signature *Vidyarthi*, to the critical solution of the native members of the Society.

SIR,

I shall feel obliged if you or any of your readers will enlighten me on a point regarding which I am in doubt. I have observed, that in MOORE's Hindu Pantheon and in several papers in the Asiatic Researches treating of Hindu Mythology, the bull, which is the vehicle of SHIVA, is styled "*Nandi*;" and the correctness of this appellation seems to be maintained by you in your No. 67, for July last, in a paper (No. VI.) on certain ancient inscriptions (vide page 590. Note 4.) Now I have searched in vain in both editions of "WILSON's Sanskrit Dictionary," in RADHA KANT DEB's Encyclopedian Sanskrit Dictionary, the "*Shabda Kalpadruma*," in CAREY's Bengallee Dictionary, and in "WARD's Hindoos," for proofs that the bull of SHIVA is called "*Nandi*." I wish therefore to know what authority there is for such an application of this term?

Calcutta, March 3rd, 1838.

The Secretary read a paper on the discovery of a notice of *Antiochus the Great* in two of the edicts of ASOKA.

[This paper is printed in the present Journal.]

Physical.

Two fresh fragments of fossil testudo from the fort boring were presented by Col. McLEOD, brought up from a depth of 450 feet.

A description of *Balwa Kund*, Chittagaon, was forwarded by Lieut. G. SIDDONS, Engineers.

A report on Caoutchouc, by Dr. W. GRIFFITH, was communicated by Government through the Gen. Dept.

[Printed in the present number.]

Various minerals and coal fossils were presented on the part of L. PLAYFAIR, Esq. through Mr. BIGNELL.

A third despatch consisting of 163 specimens of birds, and 7 animals was received from Capt. PEMBERTON, for deposit in the Society's charge.

Mr. J. P. GRANT presented for the museum eight birds and one animal in the name of Mr. CHARLES GRANT, C. S. at the Cape of Good Hope.

Mr. D. ROSS, a bird (*otus deliciosa*) mounted by M. BOUCHEZ.

Also a black-headed gull, was presented by M. X. NICOLAS.

The following announcement of two new sites of coal in *Assam* was communicated by Dr. McCLELLAND, Secretary of the Coal Committee.

TO CAPTAIN HENDERSON,

Member of Coal and Iron Committee, Calcutta.

SIR,

I beg to acquaint you for the information of the Committee that in a recent visit to the south-east frontier of the valley, I inspected beds of coal in two places, first at *Borhath* and then near *Jeypore*.

2. The first bed at the former place that I met with, was in the channel of the *Disang* river about a mile above the little village of *Borhath* and at the commencement of the rising ground of the first low range of the *Naga* hills. The bed was visible for about a hundred yards in length and about eight feet in thickness above the level of the water and gravel of the stream; it was immediately covered by a stratum of loose rubble four or five feet deep, over which was the superficial layer of soil of about the same depth that forms the surface of the surrounding place. The bed was apparently horizontal, for a part of it was visible in the opposite bank of the river at the same level.

3. Ascending the bank and proceeding up a gentle rise about a quarter of a mile, at an elevation of probably 50 or 60 feet, I came again upon a vein of coal in the banks of a little watercourse and traced it for about 200 yards. It was not here visible in extensive continuance, masses being overlaid here and there with the fallen rubbish of the acclivity above, but it cropped out at intervals and always seemed to bear a thickness of several feet. From beneath this bed several small springs of petroleum flow into the pools in the watercourse, and four or five seers (10 lbs.) of this oil were collected by my servants from their surfaces in a few minutes.

4. The coal in both these strata appeared to be of the first quality, and nothing could well be more favorable than the position for facilitating the working, nor for the transport of the coal as far as the waters of the *Disang* admit, but this stream is barely navigable for laden canoes of small size in the dry weather, although in the rains it has a depth of water sufficient for large boats, and its stream is no where impetuous.

5. The other bed of coal was similarly situated at the foot of the eastern side of the same hills, about 12 miles from *Bhorath*, about 3 miles inland from the *Dehing* river, and the village of *Jeypore*. This coal is also accompanied by petroleum springs and appears to be of exactly the same quality as that first mentioned.

6. Captain HANNAY is now engaged in quarrying some of this coal, agreeably to instructions from the Right Honorable the Governor General, and I hope soon to be able to send a small quantity of it to the Presidency. He was not aware of the existence of the *Borhath* coal, the superior facilities of transport offered by which would otherwise have induced him probably to have worked it in preference, but he could not so well have superintended the labourers, the road between *Jeypore* and *Borhath* being in an extremely bad state and scarcely passable after rain.

7. Although no other traces of coal have as yet been discovered in the immediate vicinity of either *Jeypore* or *Borhath* than the beds now noticed, it is impossible not to come to the conclusion, from what has been brought to light by previous discoveries above and below, and from the general conformity of the geology of the whole tract, that a most extensive bed of coal underlies all the small range of *Naga* hills on this frontier for an extent of perhaps upwards of 100 miles.

8. Along this great extent we may hereafter find beds extending far lower down towards the great navigable channel of the *Brahmaputra*, and therefore apparently offering some advantages in regard to transport, but as these advantages will be counterbalanced by greater difficulty in drainage it seems to me that we are not likely in all *Upper Assam* to find any two points where coal could be worked to more advantage than those now noticed, viz. *Borhath* and *Jeypore*, with reference particularly to the nature of the streams which traverse this bank; for, these receiving no tributaries of the least consequence after leaving the hills, they in themselves are as fitted for navigation close to the hills as in any part of their courses, whilst a little longer navigation is of little or no consequence, and the *Dehing* and *Disang* are the largest streams on the south bank.

9. If therefore the sample of coal to be sent down should turn out favorable in regard to cost, the committee need not I think hesitate working these seams, looking to the discovery of further beds better situated. I greatly fear however the present lamentable desolation of this part of the country and the inefficient management to which it has been entrusted may oppose most formidable obstacles to working the coal on any scale and with any economy. In the hills there is indeed a sufficient population of *Nagas* for any works, and the tribes in this neighbourhood are in great measure civilized and would willingly take employment under us, were they free to choose; but they are all now engaged in the *rāja's* salt works in the vicinity, and I apprehend they are not at liberty to leave them.



10. In therefore the existing deserted state of the country and under the mistaken policy of its ruler, I fear Captain HANNAY will not be successful in showing that the coal can be worked to advantage, and the great mineral wealth of Upper Assam will therefore not be for the present available to the state.

I have the honor to be, &c. &c,

Gouv. Genl. Agent's Office, }
Jorhat Ghat, 19th Feb. 1838. }

R. JENKINS,
Agent to the Govr. Genl.

Specimens of coal and accompanying minerals from the neighbourhood of *Hazáribágh*, were also presented by the same gentlemen on the part of Dr. A. DRUMMOND.

The following is extracted from Mr. DRUMMOND's report to the Medical Board on the subject :

" Although I am fully impressed with the belief that *Hazáribágh* is a coal district, it yet seems obvious, that no confirmation of such an opinion is likely to be obtained till the ground has been opened to an extent sufficient for ascertaining the point by actual examination.

" It cannot therefore be certainly averred that coal exists at the places indicated whence the minerals were taken, although such a supposition is highly probable.

" It is moreover strongly corroborated by other evidence. Coal is found in large quantity to the south-east of *Hazáribágh* at several places. The principal of these is called *Lugupuhar* about 24 miles distant, whence a considerable quantity was brought last year and sold at *Hazáribágh*, four maunds for the rupee. The approach to it is however, highly dangerous, being situated in a jungle so extremely dense, that tigers, hyenas, and other wild animals are in great abundance. Even at *Minkundgunge* a hill about three miles south-east of *Hazáribágh*, where I was searching for lead and antimony ores reported to exist there, I was informed by the villagers, that they had killed a tiger only eight days previous. I need therefore hardly observe that a guard on such occasions is almost indispensable.

" The other places where coal is found are called *Ruhana*, *Eechauk*, not *Eecchauk*, and *Luhio* being also to the south-east and nearly equidistant with *Lugupuhar*.

" I have not yet examined the strata in either of the above named places for the reasons just assigned, but it is my intention to proceed thither by dak in a few days, more particularly on account of fossils, of which I have not yet discovered any remains, and no traces whatever of marine testacea or vegetables.

" The discoveries of coal-beds made by the natives are more to be attributed to chance, than to any ideas they entertain of coal being concealed under ground in the vicinity of any particular strata. Those which have been discovered to the south-east were laid bare by the gradual operation of mountain torrents and other natural causes. Artificial means however, only can avail for the discovery of others, which, from their situation are but little affected by fluctuations of weather and might in the usual course require centuries even for their development. I now proceed to the specimens forwarded, and begin with

Series 1st.

" These specimens were taken from an excavation in an elevated portion of land about one and a half miles south from *Hazáribágh* at the depth of about 80 or 100 feet below the original surface. The soil has been extensively broken up by successive rainy seasons, and being skirted by a small river or nullah, to which the descent is sudden, currents and torrents probably have been principally instrumental in causing the disruption in the surface alluded to.

" The superior stratum of the original soil is about eight feet deep, of a red color, and consists of clay, sand, and gravel, with small fragments of mica intermixed, much more abundant however in the

" Supermedial stratum, just underlying the red soil, being occasionally of a blackish or blue aspect. This stratum consists of fragments of quartz and conglomerate, siliceous and calcareous earths, variously disposed and alternating sometimes with other earths. White sandstone is very abundant, being evidently decayed quartz, with mica and lime combined, having a laminated texture, in some cases easily crumbled according to its state of decay. This order appears to terminate in the carboniferous group is my belief from specimen No. 1, which seems to be coal imbedded in quartz. The coal however, is not only deprived of its bitumen, but obviously contains an excess of earthy matter; and to the absence of the one, and presence of the other is probably owing its unflammability. Exposure to the air may have contributed to its decomposition, and subsequent deprivation of bitumen as in the first instance, while the presence of earthy matter, may be assigned to the usual causes. The specimen was dug out as nearly as possible in its present state, the dark side being uppermost.

" Specimen 2 contains fragments found in great abundance in the vicinity of No. 1, having also undergone a like decomposition.

" Specimens 3, 4, and 5, alternate in the same bed with the former: specimen 6 being a species of oolite, (?) also from the surrounding strata.

Series 2nd.

" These specimens were taken from a ravine about 2 miles north-east from *Hazáribágh*, my belief of the existence of coal, in which, has been chiefly influenced by the iron stone, (as in specimen No. 1,) which it contains in great abundance. It alternates with the other specimens more or less near according to their numbers. No. 10, however is a rare specimen. The ravine is situated near a granite hill, and owes its formation to the same causes though acting in a less degree, which have been already adduced as subsidiary in forming the others, or even primeval.

" The packet lettered A is a specimen of coal from *Lugupuhar*, the specimen lettered B is from *Luhio*, and was taken from the dried bed of a river, of which the distance is about 20 miles south-east of *Hazáribágh*. There are three species of coal found at the latter place, but B is the only one I have as yet procured. Having lately visited *Kueyle* or *Kvindrée Ghat*, about 14 miles north-west from *Hazáribágh* previously unvisited by any European, I obtained some curious crystalline specimens of limestone and siliceous, of which specimen C gives the prevailing character. Specimen D was taken from an immense block of the prevailing rock of which it is characteristic.

" The *Ghat* is situated in a jungle so dense that two paces in front, a man was employed to part bushes and grass, to allow my palkee (above which the grass reached several feet) to proceed: even this mode at length was unavailing. I shall defer a more particular account however of this place, till I shall have ascertained the result of my present communication."

The following extract of a letter from Dr. HELPER to Mr. BLUNDELL, *Tavoy*, 15th February 1838, was communicated by that gentleman through Mr. Secretary MANGLES. The specimens of ore, &c. had not reached *Calcutta*.

" Before I leave this place, I of course make a report up about all what has been hitherto done. I have been very diligent since my last letter: I have made one great excursion towards the east crossing over the *Tenasserim* river to the other side of the 'supposed' boundary. My chief aim was the examination of the tin mines, and I am greatly satisfied with them. They are very productive and very extensive—only because the people do not understand to work them, and because no European, who understands it, knows of them, they lie waste. But on a large scale worked beginning with a capital of say twenty thousand rupees, one could become soon a Millionaire."

The whole country near the sea coast is abounding in capital iron ores, but the best of all is one hour from *Tavoy*. You have probably heard that loadstone has been found there; well without knowing this when approaching *Tavoy*, I found close to it or rather part of it a hill entirely composed of the very best specular iron ore*. I visited since that time the place a second time to ascertain its quantity, and found that it is unlimited.

I am of opinion, that you may work this place not waiting for coal, nay I think that charcoal is even cheaper. The place is only 25 minutes from the banks of the *Tavoy* river, leading through paddy fields. If you get dug a canal by a parcel of convicts through these fields on four feet broad, you have all done that is required. Close to the banks you set up your iron foundry. Wood carried down from the banks of the upper *Tavoy* river, is converted in loco into charcoal, and if cut down only on the banks and thrown into the water will be indeed cheaper than any other fuel. Vessels of a hundred tons burthen can approach the same banks, and carry the pig iron, to any part of the world you like. Respecting situation I think there is no place in the world so admirably situated, and a better quality you will find nowhere.

I send some boxes with collections. As I do not return before the monsoon, I would very much beg to have every thing soldered up, except the stone, otherwise all the great trouble of collecting would be useless.

I start from here to-morrow towards *Mergui*,—I intend to visit at first *Toumbiak* and the *Kiaktaun*, afterwards *Pali*, from whence I wish to cross over to the *Tenasserim*, to visit the sapan wood forests, and to go down that river to *Mergui*.

No coal yet, but I am promised to get it in *Pali*. I have some hopes to find some gold in the lower parts. If I have coal and gold, then you are content I know.

* I have a fine specimen of a similar ore from an island south of *Penang* stated to be entirely composed of it.—ED.

Meteorological Register, kept at the Assay Office, Calcutta, for the Month of February, 1858.

Day of the Month.	Observations at 10 A. M.								Calculated Humidity.			Observations at 4 P. M.								Temperature of water.		Rain.		Wind.		Weather.	
	Old stand. Barometer at 32°.	New stand. Barometer reduced.	Thermome- ter in air.	Depression of wet-bulb.	Do. by Lee's Hygro.	Dew-point.	Hair Hy- grometer.	Centesimal tension of vapour by wet-bulb.	Do. by hair hygrom.	Ditto by dew-point.	Old stand. Barometer at 32°.	New stand. Barometer.	Thermome- ter in air.	Depression of wet-bulb.	Do. by Lee's Hygro.	Dew-point.	Hair Hy- grometer.	Centesimal tension of vapour by wet-bulb.	Do. by hair hygrom.	Ditto by dew-point.	On the ground.	At elevation 45 feet.	10 A. M.	4 P. M.	Forenoon.	Afternoon.	
1	30.090	30.035	67.7	12.0	11.2	45.0	61	40	36	44	29.983	29.916	79.3	21.6	19.8	44.0	55	15	36	31			W. N. W.	clear	clear.		
2	30.040	30.000	69.4	12.0	10.8	46.0	67	40	40	45	30.006	30.001	76.3	20.1	16.2	40.5	54	18	25	28			W. W.	do	do		
3	30.111	29.975	69.1	10.1	9.4	47.2	74	45	49	50	30.062	30.005	77.9	18.7	15.7	41.0	58	22	29	33			S. W.	do	do		
4	29.971	29.907	69.0	9.0	8.0	48.0	76	52	52	57	30.062	30.002	77.3	17.1	11.8	45.5	60	26	31	34			O. W.	hazy, cirri.	hazy, cir. st.		
5	30.000	30.000	69.0	9.0	8.0	48.0	76	80	85	85	30.062	30.002	77.3	17.1	11.8	45.5	60	35	38	42			O. W.	do	do		
6	30.000	30.000	69.0	9.0	8.0	48.0	76	71	76	81	30.062	30.002	77.3	17.1	11.8	45.5	60	30	33	33			O. W.	do	do		
7	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
8	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
9	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
10	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
11	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
12	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
13	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
14	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
15	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
16	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
17	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
18	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
19	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
20	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
21	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
22	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
23	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
24	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
25	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
26	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
27	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
28	30.000	30.000	69.0	9.0	8.0	48.0	76	45	52	51	30.062	30.002	77.3	17.1	11.8	45.5	60	35	40	39			O. W.	do	do		
Mean.	29.997	29.932	74.5	8.0	8.1	50.8	81	61	62	56	29.972	29.913	82.0	15.6	14.0	50.7	65	36	38	35			change.		one shower.		

For a few days the want of ice prevented my noting the dew point. Ice from Hooghly then supplied the deficiency. — A drought and famine prevails in the north-west.



JOURNAL

OF

THE ASIATIC SOCIETY.

No. 75.—March, 1838.

I.—*Examination and Analysis of the Mackenzie Manuscripts deposited in the Madras College library. By the Reverend WILLIAM TAYLOR.*

[Continued from page 131.]

Palm-leaves, No. 42, Countermark 308.

B :—TELUGU.

I.—*Crishna Rayer Vijayam, or the Triumph of CRISHNA Rayer.*

This book is in *Telugu* verse of an ornamented kind. Its object is chiefly to celebrate a victory obtained over the Muhammadans, and a treaty cemented by marriage with the *Gajapati*, or king of *Orissa*. After the victory over the Muhammadans, it was judged expedient also to curb the *Gajapati*, who was in alliance with them. At first war was commenced; but, difficulties arising by the counsel and skill of APPAJI, the rayer's minister of state, proposals of peace from the *Gajapati* were brought about, and the latter offered to give his daughter in marriage to the rayer. In the native manner, a parrot it is said was sent to narrate to the rayer the descent and superior qualities of the other rája's daughter. This office the parrot discharged and the marriage was celebrated, with which the poem concludes.

This copy of the work is written on palm-leaves decayed at the edges but otherwise complete, and in good preservation. Its restoration does not seem to be urgent or indeed important: the following is a fuller abstract of the contents.

The author's name is VENGAITYAM son of CALAI, who invokes his gods, and the poets of antiquity, such as VALMICA and others. He wrote by direction of SRI RÁMA given in a dream, HARI-HADI-CHENNA VENCATA-BHU'PA'LA was his patron, who instructed him to write the history of CRISHNA rayer. He first celebrates *Vijayanagaram* and the

praise of NARASINGA rayer (father of CRISHNA rayer). He states that NARASINGA rayer demanded of him an account of the primitive state of the *Vidyāranya* (site of *Vijayanogaram*) and of the worship of *Virupacshi*, (a form of *Siva*) and of the proceedings of *Vidyaranahi* (a sage) before the town was built. These are narrated to the following purport.

ISVAREN assumed the form of VIDYARANALU, afterwards called SANCARA'CHA'RYA. He demanded and received from LACSHMI the privilege of having a town built in that wilderness bearing his name, where she (*Lacshmi*, that is plenty) might always reside. She directed him to go and choose some place. He went to the banks of the *Tumbúdra* river, and there seeing the fane of *Virupácshi-isvarer*, he inquired into the origin of the place, which those versed in such matters narrated to him. The legend was founded on a tale from the *Ramáyanam*. SUGRIVA ascended this hill, but VALI could not do so. There are five hills, called *Malvatam*, *Yémacutam*, *Busuva stringam*, *Madhanga-parvatam*, *Kishkindi*. They told him that this sacred land was suitable for his abode. At the same time he perceived a hare chasing a lion, at which being surprised, he remarked that this was a special place for the brave, and here a town must be built to be called (after his name) *Vidyánagaram*.

A transition is then made by stating, that NARASINGA rayer, after hearing many things on the ancient history of the place, addressed his minister APPAJI stating his wish, that his son CRISHNA rayer should be crowned, or installed, which was accordingly done. CRISHNA rayer sought advice and kingly prudence from APPAJI, who instructed him. He then desired to see all the forts and other strong places. He acquired full information on all points. He also went out in disguise, the better to know if the matters conveyed to his knowledge were true. He thus lived some little time in a brahman's house unknown; but being found out by his *harcarras* the brahman asked why he so came? He said it was for "the destruction of the evil and protection of the good." The minister SALUVA TIMMA brought to him great treasure. The *harcarras* in his hall of audience, reported to him matters concerning *Visiapuram*, and the Nizam, that a negociation was being carried on between the Nizam, the *Gajapati* prince, and the ruler of *Visiapuram*, in consequence of a dread or dislike of CRISHNA rayer's accession to the throne of NARASINGA rayer. The minister represented that as the *Gajapati* was a worshipper of *Jagannatha*, and a protector of the brahman, it would be right to pardon him, and it was determined on to proceed against *Delhi* (the Muhammadans) in preference. To this end preparations were made, and CRISHNA rayer proceeded at the head of his



army. Many favorable omens occurred, inferior chiefs of districts were overcome, and their districts assumed. All who submitted were protected. At length, after many conquests, he directed his march against *Golconda*. A great army amounting to a hundred thousand cavalry came thence with precipitancy and halted on the other bank of the *Kistna* river. A general assuring the rayer of his ability to disperse the Muhammadans, received permission to do so, and he fell upon them on the bank of the river; when, after hard fighting, the Muhammadans were defeated and fled. Some persons advised the rayer to assault the town, but the advice of the minister was that the place was too strong; he rather advised to directt heir course eastward against the *Gajapati*, who had harassed and impeded them on their march. The rayer consented, and while on the way to attack the *Gajapati*, he was opposed by scattered portions of different people, fighting without union or plan who were one by one overcome, and at length they all came proffering submission. The rayer received them favorably and confirmed them in their possessions, (as tributaries understood.) Proceeding onwards the rayer with his army invested *Amidanagara* (*Ahmednagar*). The Muhammadans of the place made fierce resistance; but were at length defeated. CRISHNA rayer took possession of that hill-fort, and erected his flag on it. Still advancing against the *Gajapati*, his minister SALUVA TIMMA represented to him, that though he could unquestionably conquer the *Gajapati*, yet that as the road was difficult, opposition would be considerable; and that it would be best to make a treaty of peace with the *Orissa* prince. CRISHNA rayer paid no attention to him; but saying that the forest was no great thing, it could be cut down, and the *Gajapati* no great matter, he proceeded in anger. On the way SIDAUVU khan opposed with sixty thousand bow-men. The fighting was obstinate; the khan having for his object to promote the glory of the *Gajapati*. News came to the *Orissa* prince that CRISHNA rayer was approaching, and the ministers of that prince advised him to go to the reinforcement of the Muhammadan chief. Sixteen other chiefs around the *Gajapati* rose up, and asked leave to go against the invading army, which leave was granted. CRISHNA rayer hearing of their coming became discouraged, and reflecting on his having before slighted the advice of APPAJI, he sent for him, admitted the error, and asked how it was now suitable to act. APPAJI said it would not be possible to conquer their opponents, but that division must be caused amongst them. Receiving all needful treasure from the rayer he wrote deceptive letters, addressed to the sixteen chiefs, and sent them in boxes in which were presents of money, with honorary dresses and ornaments: these

were given to messengers, who were sent on alone, and falling into the hands of the *Gajapati's* people, they were taken before him. The *Orissa* prince read the letters with great astonishment. The purport was to say that CRISHNA rayer consented to the terms proposed by the chiefs, and that if they would take and deliver up the person of the *Gajapati rāja*, the villages, money and jewels, as stipulated, should be made over to them. The *Orissa* prince, fearing for his personal safety retreated to some distance privately; and the chiefs, not seeing the king or knowing what was become of him, desisted from fighting. The rayer, on his part, did not advance his troops, and made no assault. APPAJI now proceeded to the *Orissa* prince, and told him that CRISHNA rayer desired his welfare. The *Gajapati* hesitated for a time; but at length thinking the rayer might be trusted, he came to an audience, bringing presents. Both parties exchanged salutations; the *Gajapati* offered his daughter in marriage; and APPAJI being greatly rejoiced strongly recommended the union. At the desire of the ruler of *Orissa* APPAJI followed him, being treated with great honors, and allowed to see the king's daughter. When about to return, the daughter named TUCARAMANI sent a parrot to her father who transmitted it by APPAJI to the rayer. The bird after narrating its own divine origin, and the perfections of the person sending it, gave the rayer satisfaction. The marriage was celebrated, and the rayer returned to *Vijayanagaram*.

Note. This somewhat full abstract may perhaps supersede the necessity of any translation, so far as historical objects are concerned. FERISHTA admits that CRISHNA rayer severely defeated the Muhammdans: the other matters are probably historical. The *ornament* at the close may be oriental metaphor merely to designate a messenger who was to repeat what was ordered, and no more. SALUVA TIMMA seems to have been the proper name of the minister; and *Appaji* a sort of title of office: many tales are current of the skill and address of APPAJI the minister to CRISHNA rayer.

Professor WILSON's notice of this manuscript may be found in Des. Cat. Vol. 1, p. 296.

Manuscript Book, No. 33, Countermark 787.

Section 5.—Brief narrative concerning the rule of the Setupatis, as feudatory princes at Ramnad.

This paper mentions a traditionary guardianship of the *Ramiseram* temple committed to seven persons, one among whom by hereditary descent, was SADÁICA, who in Sal. Sac. 1527 (A. D. 1606), was made lord paramount of the *Marawa* principality by TIRUMALA NAYAKER.

ruler of *Madura*. The transmission of the authority downwards with dates and names, and mention of connected events is continued to Sal. Sac. 1716, (A. D. 1795.)

As this short paper was translated and printed at the end of the appendix to Vol. 2 of *Oriental Historical MSS.* any more lengthened notice than the above, is not required. The original text was not then given; and as the writing of the document was rapidly fading it appeared suitable to have it restored, and available at any time for reference as a record.

Manuscript Book, No. 31, Countermark 785.

Section 1.—Account of TIRUMALA NAYADU and of his descendants, the Carnátaca rulers of Madura.

This manuscript was also translated and printed in the second volume *Or. Hist. MSS.* beginning at page 182. Hence there is need only to observe in brief, that it commences with the accession of the son of TIRUMALA NAYAKER to the throne at *Madura*, and brings the account downwards, with a somewhat minute specification of wars, negotiations and changes of power, to the period of the last feeble remains of the race, who received a village for their maintenance. In some of the details, where most obscure, this manuscript is confirmed and elucidated by the large Tamil manuscript before mentioned, the *Carnátaca rájákal*. At the time of making the above translation, this *Telugu MS.* was not without difficulty legible; a rough copy of it was then made for greater convenience, and as the lapse of two years since has only added to the difficulty of reading the original, a restored copy has been prepared from the original aided by occasional reference to the rough copy, and the text not having been printed a correct record for reference is thus provided.

Section 2.—An account of the rule of CARI CÁLA CHOLAN.

In consequence of war with the *Pandya* king, a woman of the *Chola* royal race named CUNGAINA GENT'HI escaped alone into the wilderness, being pregnant; and took up her abode in the house of a brahman a schoolmaster, and also an astrologer. By his art he declared concerning the child, after casting its nativity, that it would become a powerful and independent prince. In the ceremony of naming the child it was called CÁLI CHOLAN. After the ceremony of investing with the sacred thread, and while learning in the school, the boy was the object of much contempt from the other boys, being treated as the son of a widow. He retaliated on them; but the brahman thought it best to keep him within the house. He became well instructed in knowledge and very powerful

in bodily strength. The *Pándiya* king then ruled the *Chola-mandalam*; but, wishing to place over it a viceroy, he made public proclamation in order to meet with a suitable person. A great concourse of claimants assembled. The *Pándiyan* then put a golden pot containing water on the head of an elephant, and a wreath of flowers in its trunk, announcing that the person on whom the elephant should place the wreath, and anoint by pouring on him the water would be regarded as chosen, and to that person the king would give his own daughter in marriage. The elephant being let loose, avoided all the people in the town, and going direct to the aforesaid brahman's house, there selected the youth by depositing the wreath on his head, and pouring the water over him. The young man was as strong as ten elephants, but in order to diminish his strength the brahman rubbed the sole of one of his feet with charcoal, and thereby took away the strength of nine elephants, leaving him only as strong as one elephant. He was subsequently installed at *Combaconum*; and had the name of *CARI CÁLA CHOLAN* given him to commemorate the rubbing of charcoal (*cari*) on his foot. But the king's daughter was not given him. He strengthened and enlarged his capital town. The young man learning from his mother that his father was before him king of the *Chóla* country, that his father had feared to encounter the *Pándiya* king, and had died during the disturbance that had arisen; resolved on vindicating his own, and his father's right: and, assembling an army, set out to make war on the *Pándiya* king. The army is stated at 250,000 cavalry, under commanders whose names are given, who approached the *Vaigai* river. The *Pándiyan* alarmed, brought to him treasure and jewels, and after much flattering homage, embraced him, and conducting him to his palace seated him, on terms of equality, on half of his throne, and married him to his daughter *SID'-HE'SVARI*, after which *CARI CÁLA CHOLAN* returned to *Combaconum*, where there were great rejoicings. He allowed the cultivators three parts of the produce, and took one-fourth (the ordinary rate used to be one-sixth), with which revenue he built and repaired many sacred edifices, gave large donations to brahmans, heard many religious stories recited, and was a firm votary of *Siva*. In order to see if his people were firm in that way, and with a view to discover and rectify evils, he was accustomed to go out in disguise, covered with a common dark-coloured hair blanket, during the night. Out of this custom arose the following circumstances.

There was an aged brahman who, as the result of long penance, had a son born to him, who when grown up was married, and the old man died, but not before having charged his son to carry his bones to *Cási*,

and bury them in the Ganges. The young man prepared to do so; but on the eve of setting out slept in the porch of his house, and there gave strict charge to his wife to keep within doors, while he should be absent for a year and a half; the only exception being that, if in want, she might ask alms of the charitable prince CARI CÁLA CHOLAN. The latter was at the door; and, admiring so great an act of confidence, determined on being the watchful guardian of that house. While the brahman was absent he watched it carefully; but the brahman returned within six months, on the way to complete his pilgrimage at *Ramiseram*, and wishing to assure himself of his wife's discretion, approached the door alone at night, and looked in through its apertures. The *Chólan* came thither at the same time, and thinking the brahman was a thief cut him down with a sword, and retired. His wife next day suffered great reproach from her neighbours, but recognizing her husband, she burned herself with his body; and the king having unconsciously killed a brahman, had the visitation termed *Brahma-hatti* (a personification of the crime, as if an evil spirit, always following him). He made many attempts to get rid of it, but though the sprite quitted him at the door of a temple, or entry on a sacred pool, yet it always returned afterwards. He went on pilgrimage to the shrine of *Minátchi* at *Madura*, who, in a vision, informed him that the visitation could not be so easily got quit of, but directed him to build 108 *Siva* fanes, and then at *Madhyáranya* he would be relieved. He accordingly built a shrine every day, not eating till each day's work was done; but he did not know where *Madhyáranya* was. At length he found an emblem of *Siva* under a tree named *Madhi*; and *Siva* there appeared to him, directing him to build a temple; to enter at one gate, where the sprite would halt, and would be imprisoned, and to go out at a gate on the opposite side: which the king did, and was cured. He however died childless, and his queen followed him. There was no *Chola* king after him, he reigned fifty-five years. The above things concerning him were compiled by CHACRATAI-YENGAR a *Vaishnava* brahman of *Mélur* from the *Bakhti Vilāsan* and some other books, inclusive of *St'hala Mahátmyas*, or temple legends.

Remark. Fable and fact appear to be blended in the first portion of this account, the latter portion explains and illustrates some parts of the *Madura Purānam*, and from the comparison of the two, a few historical facts may be gleaned with some measure of certainty. It is to be noted that this last of the *Chola* race, made *Combaconum* (twenty miles north of *Tanjore*) his capital. This is the first document I have as yet met with stating that fact; though I always thought that *Combaconum* must once have been a metropolis, from traces remaining.

Section 3.—An account of the *Yánádu-játi*, or wild people of *Sri-hári-cóttá*, received from an old man of that tribe.

Of old one named *RÁGHAVA* brought with him sixty families from *Páca-natti* district; and located himself with them at *Sri-hári-cóttá*, and clearing the country formed *Rághava-puram*. The people by degrees spread through a few adjoining districts. A *rishi* who came from *Benares* and was named *AMBIKE'SVARER* resided in *Madhyáranya* (or the central wilderness); and there, daily bathing in a river, paid homage to *Siva*. These wild people of their own accord daily brought him fruits and edibles, putting them before him. At length he inquired of them the reason, they replied that their country was infested by a terrible serpent, and they wished to be taught charms to destroy it, as well as charms for other needful purposes. He taught them, and then vanished away.

These wild people, being skilful in magic, continued in the forest. They are of four classes:

- | | |
|--------------------------|-------------------------|
| 1 <i>Chenju-Vándlu</i> , | 3 <i>Cóya-vándlu</i> , |
| 2 <i>Yánádu</i> , | 4 <i>Irālā-vándlu</i> . |

The *Yánádu* people are skilful in medicine. The *Cóya* people reside to the westward in the wilds at *Gooty*, *Athavani*, and other circumjacent places. Within their forest boundaries, if any traveller attempt to pluck fruit from any tree, his hand is fastened to the spot, so that he cannot move; but if on seeing any one of the *Cóya* people, he call out to that person explaining his wishes and get permission, then he can take the fruit, and move away; while the *Cóya* forester, on the receipt of a small roll of tobacco leaf, is abundantly gratified. Besides which the *Cóya* people eat snakes. About forty years since a brahman passing through the district saw a person cooking snakes for food, and, expressing great astonishment, was told by the forester that these were mere worms; that if he wished to see a serpent, one should be shewn him, but that, as for themselves, secured by the potent charms taught them by *AMBIKE'SVARER*, they feared no serpents. As the brahman desired to see this large serpent, a child was sent with a bundle of straw and a winnowing-fan, who went accompanied by the brahman, into the depths of the forest, and putting the straw on the mouth of a hole commenced winnowing, when smoke of continually varying colors arose, followed by bright flame, in the midst of which a monstrous serpent, having seven heads was seen. The brahman was speechless with terror at the sight; and, being conducted back by the child, was dismissed with presents of fruits, and proceeded to the north. This circumstance occurred among the *Cóya* people of the woods or wilds to the northward



of *Pála-Vamchcha b'hadrāchalam* in Sal. Sac. 1635, (A. D. 1712-13.)

The *Chenju* people live to the westward of *Ahóbalam*, *Sri-Sailam* and other places, in the woods or wilds; and go about constantly carrying in their hands bows and arrows. They clothe themselves with leaves, and live on the sago, or rice, of the bamboo. They rob travellers, killing them if they oppose. "This people afflict every living creature:" (kill for food is supposed to be meant.)

The *Irala* people carry bows and arrows, and wander in the forests. They are thieves. The *Yánádu* class alone do not plunder. They are employed as watchmen: they collect a kind of bark and roots, used for dyeing red, bringing heavy loads, and receive whatever the sircar is pleased to give in return. They chiefly live on a kind of white root and wild-honey. The sircar employs them as watchmen. In the woods near *Sri-hári-cotta* there are forty of these *Yánádu* people (supposed to be heads of families). The sircar gives to the head man of these people twelve *marucals* of rice monthly: in return he delivers sometimes ten bundles (each five hundred lbs.) of the dyeing bark. The others, who do not carry on this intercourse, live in their own manner in the forest on white roots and honey. This handful of *Yánádu* people seem to be comparatively separated; for if they attempt to hold intercourse with others of that tribe at a distance, they are killed; and their wives are carried off: the others hold no intercourse with them. Such, as far as could be obtained, is an account of these *Yánádu* people obtained from JA'RA'MARUDU, as far as he could give information.

Remarks. This paper was read over by me a year or two since, without any other remark than that there were people in the *Peninsula* of whom Europeans had received little or no information. It now attracted attention chiefly from its following the preceding papers and from wishing to dispose of the entire book, No. 31, without need of future reference. But reading it now after having had previously in hand the paper on the *Khoi-jāti* mountaineers of *Goomsoor*, (Mad. Jour. of L. and S. No. 16,) termed *Códalu*, in the *Telugu* paper therein translated, it appears to assume more importance than otherwise I should have attributed to it. For it seems that the proper term is neither *Khoi*, nor *Códalu*, but *Cóya-jāti* (in the ordinary pronunciation to the ear very similar to the enunciation of *Khoi-jāti*), and that they are a subdivision of a much larger body of people. I am confirmed in my supposition that the so termed *B'heels* of the north in *Gujerat*, &c. are of the same kind of people, though seemingly more closely analogous to the *Chenju*, or *Irala*, class. As regards the seeming absurdity of the

bundle of straw and the large serpent, I am of opinion that this is an enigma, and covers some more recondite meaning. Having in the Mackenzie papers sometimes met with a fact plainly narrated, and in others veiled by fable, metaphor, and symbols, I have learned not hastily to dismiss such seemingly crude orientalisms, but to try to look through them; and in this instance, without pretending to solve, what I am tolerably sure is a symbolical statement, I would throw out the conjecture, whether it do not allude to the *Meria-pujai*, or human sacrifice, which may possibly be the charm on which these *Cóya* people relied, and which they may have practised, as well as the savage inhabitants of the mountains of *Goomsoor*.

The locality of *Sri-hári-cotta* is about twenty miles northward of *Pulicat*: the country about *Gooty* stretches thence northwestward; but *Sri Sailam* is farther to the north. These savages are found in the *Goomsoor* wilds and mountains, and from personal information received by me, there is a very similar kind of people dwelling in the woody mountains of the *Dindigul* province, to the south. In the persons of the *B'heels* they dwell on the *Vindya* (or *Bhind*) mountains; and I have, in the paper before alluded to, shewn it to be probable that they inhabit the *Baramahl* hills to the north of *Behar*. The account of this people as carrying bows and arrows, living on roots, honey, or reptiles, agrees with intimations throughout the more local papers of the Mackenzie collection, and with current fables as to the *Vedars* who seem to have been wild savage people, aboriginal when the Hindus first began to colonize it from the north. Thus we have a somewhat wide range of data for inductive evidence, in favor of this particular kind of people, under various subdivisions, having been the primary dwellers in the peninsula. The conclusion need not for the present be drawn; but it is clearly indicated: to be followed, possibly, by other equally plain steps of historical deduction, arising out of the Mackenzie papers, by the aid of patience and perseverance. The point once established, that the Hindus are not the aboriginal native inhabitants of the peninsula, does not seem to me of trifling magnitude; and this point, I expect, will be fully proved, in the process of the present investigation.

C:—MALAYALAM.

Manuscript Book, No. 3, Countermark 896.

Section 5.—Kérala Upatti. An account of the Kerala, or Malayalam country.

This manuscript is stated to be copied from one then in the possession of Dr. LEYDEN: the following is a brief abstract of the contents.



Invocation. The incarnation of PARASU-RÁMA and his destruction of the cshetriyas. He formed the *Kerala desam*, which being infested with serpents, he introduced the *Arya brahmans*, and located them in sixty-four villages. Minor details of internal arrangements. PARASU-RÁMA procured from INDRA the grant stately of six months' rain in the year. Other details concerning the classes of brahmans, and their offices. The brahmans at first conducted the government on the principles of a republic; but not agreeing among themselves, and disputes about property arising, PARASU-RAMA determined that it would be better for the country to be governed by a king, and one was selected born by a brahman father, by a *cshetriya* mother, thus combining brahmanical and kingly descent. He was first settled in the *Kerala* division, whence arose the name of *Kerala desam*, but the entire *Malayalam* country was originally divided into four districts. *Táluva*, *Múshica*, *Keralam*, *Cáva*, the latter on the extreme south: details of the villages. At a late period in the *Cali-yuga* the bauddhas came to *Kerala-desu*; and the king CHERUMAN PERUMAL learnt from them their mode of religious credence. Being favorably inclined to them, and having adopted their system, he intimated to the brahmans that they must unite with the bauddhas, and follow their system. The brahmans were greatly alarmed and incensed, and consulting with a leading individual among them at *Tri-Cárúr*, he promised to remove their difficulties. Following his advice the brahmans went to the king and remonstrated with him, calling for a public disputation, when if they, the brahmans were vanquished, their tongues should be cut out, and the like done to the bauddhas if these should be overcome. The dispute was held, terminating favorably to the brahmans in consequence of a magical influence emanating from the head brahman at *Tri-Cárúr*: the tongues of the bauddhas* were cut out and they were banished the country. The king who had adopted their system was dethroned, and some lands were set apart for his support. He is not the CHERUMAN PERUMAL who went to *Mecca*. His son was crowned and an oath was taken from him, never to permit the bauddhas, or people of any other religion to obtain public sanction. Other details of some subsequent matters are given. At later periods, when the above oath had fallen into desuetude, the bauddhas (Muhammadans) obtained some footing in different places. The system of *Bhattáchárya* obtained in the *Malayala* country, and the vedantists, of that class, received some

* In *Malayalam* it seems that the Muhammadans are termed *Bauddhas*. The Syrian Christians are called *Marga-carer* "people of a way;" but are never designated *Bauddhas*. Such a use of the last term as applied to Muhammadans is, I believe, peculiar to the *Malayala* country.



endowments in lands. At an assembly of the brahmans of the sixty-four villages, it was determined that only the brahmans of eleven villages (or village-districts) should possess the right of offering a particular species of *yagam* or sacrifice, and of performing some other special ceremonies. In process of time the rule of kings had become extinct, and some brahmans went to CRISHNA rayer inviting* him to take the rule of the country. He sent two persons respectively named *A the rája PERUMAL* and *Pandeya rája PERUMAL*, as his viceroys, each for a period of twelve years. After them CHERUMAN PERUMAL was sent, who was welcomed by some distinguished persons, safely conducted, and duly installed. He ruled thirty-six years, being three times the appointed period, on account of his good qualities. The rayer however was not satisfied with this extension of the term, and determined on hostilities. CHERUMAN PERUMAL took counsel as to the best means of meeting the invasion. In the first place two brahman ambassadors were sent to the rayer to endeavour to pacify him; but he refused to listen to them. A little fable is narrated of the manner in which the messengers acquired a magical quill, by looking through which the real nature of any being could be discerned. The *Cheruman* in connexion with the *Calicut* rája, and other subordinates, assembled a great army, and, while the multitudes were asleep, by looking at them through the quill, it was perceived that 10,000 were men, 30,000 gods, and the rest *asuras*. To the ten thousand a distinctive mark was affixed, and with them the rayer was encountered and defeated.

The birth of SANCARA'CHA'RYA is then narrated with his proceedings as to the different castes of people and the regulations established by him accounted for in rather a fanciful manner, but it is stated that his regulations continued to be observed. CHERUMAN PERUMAL continued to rule. A *Nayar* was killed, who after death is represented as instructing the king to attend to the lessons of a *Jonaca* (Muhammadan) teacher, according to whose advice he might embark on board ship, and would thereby attain a partial beatification. He† divided his whole dominions into eighteen portions, which he gave over to the charge of different chiefs. The two ambassadors by whose means the rayer had been conquered each received portions of country. He specially gave a shield to the *Calicut* raja. CHERUMAN PERUMAL then went away (by sea) to the country termed *Asu*, (supposed to designate Arabia.) The *Calicut* rája afterwards waged war with the various petty chieftains, conquering some of them, and acquiring superiority.

* He more probably conquered the country, without any special invitation.

† This is the CHERUMAN PERUMAL who is said to have adopted the Muhammadan religion, and to have gone to *Mecca*.

The arrival of the Portuguese at *Calicut* is noticed, and the *Calicut* rája is said to have fought with the captain. The rája ruled over eighteen forts, and seventeen districts. He fought continually with his neighbours; the Travancore and Tellicherry rájas being excepted. He subdued many countries, exaggeration appearing in the enumeration of them. He acquired pre-eminence above other kings. The customs of the *Calicut* kingdom are then narrated; laws regulating interest and profit. The commencement of the *Collam* era is thus accounted for. The rule of the viceroys of *Vijayanagaram* had been fixed at twelve years corresponding with the revolution, in orbit, of the planet Jupiter. But as CHERUMAN PERUMAL exceeded the prescribed time this mode of reckoning fell into disuse. In a period of great scarcity and drought, when a large reservoir (*Collam*) had become quite dry, the brahmans, in a body, went to the *Calicut* rája and represented that the cause was his withholding the customary largesses to the gods and the brahmans. The rája acknowledged his fault and promised to repair it. As a commencement a great number of brahmans were fed in the dry bed of the tank, and before they had finished eating, the water rushed in with such rapidity that they were obliged to make their escape without having time to take away the leaves on which their food had been eaten. An era was begun to commemorate this event, being the *Collam* era. Matters relating to the cultivation of cocoa-nut trees, betel vines, &c. customs in dealings, buying, selling, &c. Rules to regulate hunting. Origin of the *Nayars*, also of a kind of divinity derived from the fable in the *Mahábhárata* of *Siva's* appearing to ARJUNA during his penance near the Himalaya mountains. The origin of the *Ayuiar* born from *Siva* and *Mohini*. The names of various local *numina* in the *Malayala* country are given. Names of various fanes in that country. Besides which the thirty-three *crores* of superior gods, and the sixty-six thousand *asuras*, are all said to have been in *Malayalam*, together with the superior gods protecting the country.

Afterwards the names of the *Calicut* rájas and other inferior chiefs are given. The story of a *Jonaca* (Muhammadan) who came to this country, the cause of which is narrated; the foreigner extended the dominion of the *Calicut* rája; magnificent things are stated as to the conquests of the *Calicut* rája, originating in his devotedness to *Sri Bhágavati*, and her gifts to him. Notwithstanding the foreign Europeans came and took possession of *Calicut* whom however, in the end, the rája defeated. The *Curumbas* of the hilly district greatly helped, and had districts given in consequence. Disputes between this *Curumba* chief and the *Cochin* rája. Details of the number of *Nayars* belonging

to different parts of the country. Reference to the regulations made by PARASU-RAMA, and confirmed by SANCARÁCHA'RYA as to the distance which must be observed by different castes, in their approach one towards another. The distance in feet being minutely stated. Brahmans and cows are of good birth, other classes of men and other animals not so. With these regulations as to personal distinctions, and caste observances the account concludes.

Remark. The writing of this document was in one place very much faded. As it is one of the best of the few *Malayalam* MSS., it has been restored; and its entire translation is recommended, notwithstanding that it contains some things puerile, and some absurd. Still there are real historical details, and these can always be best selected, after that the whole evidence of any document, whether important or trifling, has been fully and fairly brought into view.

D:—MAHRATTI.

Manuscript Book, No. 6, Countermark 918.

An account of kings of the four ages, and specially of the Mahratta kings of Sattara.

An account is proposed to be given of the four ages, the kings of *Hastinapuri*, the *Muhammadans*, the *Maharáshtiras* and *Bhosalas*. The narrative is professed to be received from VITALA *svámi*, an incarnation of a portion of the divine essence near *Sattara*. Mention of the incarnation of VISHNU in different ages. With a brief reference to other kings, the lines of *Yudishthira* is given. Then the ancient line of the *Bhosala vamsa*, ruling for 1330 years. A further list of the line of *Yudishthira*. JEYH SINH from the Bengal country made great conquests. Various other kings. NARADA SINH is said to have ruled at the commencement of the era of *Sáliváhana*. The race of NARADA SINH is given. In *Sal. Sac.* 500 the Padshah is said to have ruled in *Hastinapuri* (*Delhi*.) The sultans of this race protected the *Maharáshtiras*, and gave them lands to the southward of the *Nerbudda* river. Some little matter is given in the *Balbund* character. The Padshah's instructions to the Mahrattas as to tribute and duties. The instructions of the great Mahratta (i. e. the *Bhosala*) to his tribe and dependants, as to the manner in which they were to govern so as to fulfil the Padshah's wishes, and not to oppress the accountants, or people. A list of the *Bhosala* race. A request made by the *Diván* (or *Peshwa*) to give him a grant of land. The *Bhosala* pointed out the neighbourhood of *Poona*; and gave him a grant of land there subject to quit-rent, or tribute. Subsequently the *Diván* named BAJI RAO, did not

send tribute to the *Bhosala*, on which account the latter wrote two or three letters. The reply was in substance, that as the *Bhosala* derived his possessions from the Padshah, so he, BAJI RAO, owed him, the *Bhosala*, nothing; but that the tribute must be given to the Padshah. Both parties appealed to the Padshah, in consequence of which appeal, an order came to the *Bhosala*, directing him not to interfere with the *Diván*, and that tribute from the latter must be sent to the Padshah. The *Diván* did send tribute for a short time and then discontinued doing so. In consequence the Padshah sent a detachment of troops to demand the stated revenue; but the officer was put off with various excuses. Meantime the troops killed every day twenty or more cows, on which the *Diván* remonstrated and wrote to the Padshah who replied, that it proceeded from his refusing to pay his tribute, which if he did the annoyance would be withdrawn. The *Diván* requested a small portion of land to be bestowed on him, in free gift, or fee simple, wherein he might carry on the rites of his religion without molestation. The Padshah consented, bestowing on him an *inam* grant; and restored all the remainder of his former possessions to the *Bhosala*, as a tributary. The *Diván* within his small district strengthened himself by degrees, and assembling troops at length ventured on making war on the *Bhosala*, who being occupied chiefly in peaceable duties and depending on protection from the Padshah kept up no great standing army; as a consequence he was attacked by the *Diván*, taken prisoner and carried to *Poona*. As the *Diván* obtained great plunder and wealth from the *Bhosala* so he greatly increased his army therewith; and, when the Padshah assumed hostile demonstrations, he sent word to say, that the country south of the *Nerbudda* was fitting to be ruled by brahmans; that he, the Padshah, need give himself no trouble, for whatsoever tribute was demanded should be remitted. The Padshah relaxed on receiving this message; and consented to receive tribute. The *Diván* accordingly had accountants prepared in the different languages of the country, being *Gujerati*, *Baibandi*, *Mahratti* and *Canarese*. BAJI RAO now sent messages to the *Guicowar*, to *Scindiah*, and the ruler of the *Cóngama* country (the Konkan) calling on them for allegiance and tribute in which case he would protect them, seeing that he held his authority by sanction of the Padshah. The consequence was a war with the *Cóngama* country, which he conquered; and next the conquest of the *Guicowar* the ruler of *Gujerat*. The ruler of *Visiapúr* hearing of these proceedings determined to make war on BAJI RAO to humble him and to assume his country. This he did and began to rule over that country in Sal. Sac. 1610, (A. D. 1687, 8.) The name of his viceroy was SHAHOJI. Other changes

and revolutions followed, one named RAM SINGH obtained a temporary ascendancy; but the *Visiapur* Padshah sent an army and overthrew him and subsequently re-instated the *Bhosala* as a tributary. His name was SIVAJI: other wars followed. List of rājās of the *Bhosala* race, who subsequently ruled; with the period of each one's rule. The *Cólapur* rāja meantime protected the posterity of the beforementioned BAJI RAO. A number of zemindars or persons who had received benefits from BAJI RAO, were assembled; and counsel was held as to the means of raising an army to go against the *Bhosala* and re-instate the descendant of BAJI RAO. An application was made by him to Bombay for help from the English there in Sal. Sac. 1635 (A. D. 1712, 13), stating his prior claims to the country, now governed by the *Bhosala*. It would appear that they gave assistance. The descendant of BAJI RAO then addressed a memorial to the Padshah stating his claims, a copy of which, at length, is given. It is verbose in details of preceding matters; assuming in part, somewhat the air of a manifesto, demanding at least the restoration of the small *inam* grant, or independent territory, before given to BAJI RAO or else with the aid of the *Cólapur* rāja, and other auxiliaries, the memorialist would be prepared to make war for the recovery of his patrimonial inheritance. This memorial was written in Sal. Sac. 1572 (A. D. 1659-10): on the despatch of the memorial, the writer of it set out at the head of 25,000 men to attack the ruler of *Visiapur*; halting at the village named *Visála-godda*; whence a few troops of the Padshah retreated. The *Visiapur* Padshah went, it is stated, to *Goa*, giving instructions to his respective chiefs; especially to the commander at *Aurungabad*. The minister of the young man named NANA FARNIS interposed his counsel; to the effect that the *Visiapur* Padshah was too strong for him; that the concentration of troops forming at *Aurungabad* would render it inexpedient to go against *Visiapur* itself; and that it would be better to proceed against the *Bhosala* rāja of *Sattara*. This counsel was followed. The army was made to retrograde; and was turned towards the latter place. DIL ALI KHAN came to the assistance of the *Visiapur* Padshah with 60,000 troops from the Padshah of *Baganagur* (*Bisnagur*?) The young man was greatly intimidated by the arrival of this auxiliary force. He divided his army into two divisions proceeding with 13,000 against *Sattara*, and sending 12,000 into the *Congama* country (the Konkan), which latter was conquered and brought under revenue management. The *Sattara Bhosala* fearing to encounter the invaders, relinquished the country and gave it up to them. The descendant of BAJI RAO in consequence gave to the *Bhosala* a small territory, to hold as a feudatory; on the condition of being ready to do mili-

tary service whenever summoned. His title was still to be *Siraji Bhosala Mahā-rāja*. The descendant of BAJI RAO soon after died. He had no child, but his wife was pregnant, and under the instructions and guidance of NANA FARNIS a regency was formed *ad interim*. A transition is then made to the race of the aforesaid *Bhosala*; their names, dates, and periods of rule being given. Details of their donations, and endowments of shrines. The before mentioned wife of BAJI RAO's descendant was delivered of a son, who was named PANDA PRATANA BAJI RAO, great rejoicings were made, and the government was conducted by NANA FARNIS. A woman of the same race named GANGI BHAI had a share in the government. The young man on coming to 16 years of age was installed, and named SIMANDAR BAJI RAO. He had some English auxiliaries in his pay, and made conquests in the neighbouring *Congama*, and *Telinga* countries. He established DOWLUT RAO SCINDIAH, HOLKAR RAO the *Guicowar*, and also the *Bhosala* as subordinate chiefs; the authority descending to their posterity. He himself maintained a standing army, as stated of a crore, or ten millions, (that is to say a large army.)

The preceding account was written by APPAJI of *Mysore* in A. D. 1806, finished on the 12th April at *Poona*.

Remark. It will appear from the above abstract, that the document to which it refers is of considerable relative importance towards illustrating the history of the Mahrattas, from the time of their origin. I would defer stating any thing, with reference to full translation, until the various documents in the Tamil language, some of them of great length and much detail, bearing on the history of Mahrattas, have undergone a more full examination by me. The present document can be referred to at any subsequent period. The manuscript book containing it was damaged and in rapid progress towards decay; on which account, as well as from the presumed value of the contents, the document has been restored.

E:—SANSKRIT.

(*Grantha* character.)

Palm-leaf Book, No. 236, Countermark 1044.

Chatur Vimsati Purānam.

Invocation. A brief indication of the contents, then a reference to the author, and to his readers. The *Purāna* is derived from the supreme

lord PARAMESVARER, its virtues and beneficial tendencies are announced, great virtues of its writer : great advantages will result to its readers.

The *Purána* opens with a reference to VRISHAB'HA Svámi, who lived in the centre of the southern portion of the land of *Bharata* in *Jambu dwi-pa*, (central Hindustan,) an early *Chacraverti* (or ruler) came to him, and begged to know all customs, differences of times, and other matters from the time of SUSUMAN. The *svámi* favorably received his request and taught him the *Múlatantra*, or principal system, which was delivered by GAUTAMA to SRENICA, the great king, and consisted of 455,442,003,100,530 stanzas. This, the great *Purána*, is taught from age to age. The account is then conducted as if repeating what GAUTAMA stated to SRENICA, a specification of the various *yogas*, that is, religious rites or modes of worship. A reference to SVAYAMBHUYA MANU and the matters which occurred in his time introducing the mention of the *Ulsarpani* and *Avasarpini* periods; the former prosperous as following the renovation of all things after the periodical deluge; the latter adverse, as going before and preparing for the destroying and purifying deluge. (See MS. book, No. 12, Section 1.) The peopling of the *Bharata candam*, (or continent of India) with the *Manus*, *Chacravertis*, and people is next adverted to. The prompt justice and equity of the *Chacravertis* in the punishment of crime. The book then mentions various matters, concerning the world, countries, towns, kingdoms, sacred rivers or pools, donations, penance, in detail. In those times men believed in only one creator, who created men good and evil, not according to his own purpose of mind, but according to their good and evil deeds in a former state of existence. Afterwards the bounds and the nature of the *Bharata candam* (or upper India) are stated, its hills, peaks of mountains, &c. The great city of *Alacपुरi*, on the northern portion, its ruler was ATHIPASEN king of the *Vidyadharas*, (a species of celestial): he considered the luxury of kingly rule to be like smelling a poisonous flower, and relinquished the kingdom, devolving it on his son; and, becoming a naked ascetic, he was initiated into the *Jaina* system. Details are given of that system. MAHAPALEN governed, he had four ministers, two of whose names were MAHAMATHI and SVAYAMPUTTI. One day SVAYAMPUTTI, being a distinguished person among the *Jainas*, asked the king some questions of a religious character to which the king replied, and they both agreed that the body dies, yet that the *Jivan* (life or soul) does not die. A story is narrated in illustration; to the advantage of the *Jaina* system. Various accounts are given of persons who by acts of merit according to the *Jaina* belief, obtained beatification. Some ac-

count of persons who by evil actions incurred the pains of *Nāraca* (or hell.) Description of the various places of torment, and the punishment inflicted: being instructed, or purified, thereby: the persons so punished subsequently attain to happiness. Mention of persons who obtained beatification in the *Isana-calpam*. There follow details of capital towns, each the metropolis of a state or kingdom. Prophetic declaration as to the future birth of *VRISHAB'HA svāmi*, his incarnation; *BRAHMA* and other gods did him homage. Many matters follow concerning that incarnation and its praises. An account of the instructions given by *VRISHAB'HA svāmi* seated on a lofty seat, or throne; *BHARATA* and others received his lectures, an account of their panegyric on the teacher. The glory of the *Jaina* system dwelt on. The *Chacraverti* afterwards returned to *Ayodhya*, and received homage from the *Vidyādharas*; in a dream he had a vision of the god who announced to him that persecutions and sufferings would arise from the *Pāshandis* (a contemptuous epithet applied to the *Saivas*), and also from the *Mlechchas* (outcasts or barbarians), detailed at length. The *Chacraverti* in the morning performed the rite of ablution, in order to remove the evil of the dream, or to avert its accomplishment. Details of *PRABASAN*, *CUMB'HAM*, and many others, are given, as coming from the mouth of *GAUTAMA*, delivered to *SRENICA*, that is to say, of what kind of birth or form of being, they before were, (on the system of the metempsychosis,) what kind of actions they performed, afterwards being instructed in the *Jaina* system, they acquired beatification. These various accounts in much detail occupy the rest of the work.

Note. This palm-leaf manuscript on examination was found to be complete, and in good order; with the exception of about fifty leaves at the beginning. These were restored on other palm-leaves, and added to the book, for its more certain preservation.

The work it will be seen carries up the origin of the *Jaina* system to the very birth of time; yet as the whole turns on the alleged incarnation of *VRISHABHA svāmi* (considered by some to be a subordinate incarnation of *VISHNU*), and as *VRISHABHA svāmi* was posterior to *GAUTAMA BUDDHA*, the evidence for such high antiquity may receive as much credence as any one may choose to bestow. In truth the *Jaina* system, at its origin, was a modification of the *Vaishnava* one. To me it seems that the *Pāli* work (about to be published in *Ceylon*), entitled the *Mahawanso* (or great genealogy), clearly fixes the origin of the *Bauddha* and *Jaina* systems at *Māgadha*, three or four hundred years antecedent to the Christian era. Nothing in this work, as it



seems to me, contradicts such an origin; without being easily reconcilable thereto. The entire book might be worth translating, at some future period; for though the *Jaina* legendary history is as much beclouded with metaphor, and fiction, as the *Brahmanical*; yet, from a comparison of the two, facts may be selected which could not be received on the evidence of either one of the parties.

Prof. WILSON's notice of this book (Des. Cat. vol. 1, p. 152) is as follows :

“ VI. CHATURVINSATI PURĀNA.

“ *Tamul Language and Character, Palm-leaves.*

“ An account of various sovereigns, peculiar to the legendary history of the *Jainas*, who flourished contemporaneously with the twenty-four *Jainas*, as *Vidyādhara*, *Mahābala*, *Vajrabāhu*, *Vajragarbha*, *Nābhi*, *Vrishabha*, *Bharata*, *Anukampana*, *Sripāla*, *Samudravijaya*, *Srishena*, &c. In three books, by VIRASOMA SURI.”

The statement of this book being in the Tamil language and character must have been an oversight of Prof. WILSON's assistant. It is a *Prakrit* (or unpolished Sanskrit) work of the kind sometimes denominated (by natives of other provinces than the Tamil district), the *Tamil Grant'ha*; the term *grant'ha* not then denoting merely a book, but a *Prakrit* work, both in letters and language.

Conclusion.

In this report I have not included all the works that have been the subject of examination, collation and restoration during the brief period of two months, to which it refers; but only so many as would suffice to form a primary volume of restored documents; of which moreover, I could get the abstracts written over from my rough notes in sufficient time; and the preparation of an abstract, forms to me, not the least laborious part of the duty. Such MSS. as for the present lie over, I purpose to include within a following statement.

II.—*On the Revolution of the Seasons.* By the Rev. ROBERT EVEREST.

(Continued from vol. VI. p. 308.)

When my last paper upon this subject was in hand I was in hopes of receiving additional lists of the prices of corn from different parts of the country, which might enable me to trace the average line of variation throughout the last century with a considerable degree of regula-



city. In this I have been so far disappointed, that the lists received have been very few, and not above two of them extending more than 25 years back. That the data which they, together with those already in my possession, afforded, should be insufficient to give results regular, or nearly regular, was no more than experience with the most recent period (from 1835 to 1806) led me to believe. But there are some farther impediments to extending the investigation beyond 1806 which must be particularly noticed. 1st. Many of the lists do not extend beyond 1812; only 12 out of 30 reach to 1792, and only 5 to 1750. Each of these lists has a particular mean dependent upon local circumstances, and the cessation of it affects the general average. The only way to obviate this source of error, would be to reduce each list to a common mean, the labour of which would be very great. 2ndly. No registers of the prices of corn for this period have been kept with a view of ensuring accuracy; consequently the lists have been filled up from the best information that could be procured, such as the private memoranda of individuals, merchants, and others: of course the more distant the time the more scanty and uncertain those data would become, and we can hardly believe but that many of the results they furnish must be, in a degree, erroneous. 3rdly. Previous to the year 1806 great part of the country was still in its age of chivalry; at one time subject to the passage of numerous armies, sacking, plundering and devastating; at another to the forays of bands of knights-errant. Besides this, the different governments often took the corn dealer under their paternal care, and he was made to sell as the caprice of a tyrant, or the clamours of an unthinking people, obliged him.

All this being premised we have now to state what the actual result of an examination of the lists has been. The lists which formed the N. W. line in a previous paper were not increased in number, but separated into two divisions, according as the places from which they came were situated nearer, either to *Dehli*, or to *Lodiana*.—The average was taken of each division, and, as in the former case, the difference between the maximum and minimum from 1750 to 1835 was divided in 1000 parts. The *Benares* line remained the same as before.—The *Bengal* line was increased by a list from *Calcutta* taken from the 12th vol. of the *Asiatic Researches*. The last, or southern line (*Jubbulpore, Indore, and Bhopal*), was increased by the addition of a line from *Dundwala* in the *Panjáb*. The average of the five lines was then taken and the general line traced out in the manner described in the former paper. I have before mentioned the notion that a complete revolu-



tion took place in 56 years, or three cycles. In pursuance of this idea it was intended to described the first 56 years, beginning with 1835, and then to place in a line above them the next 56 years beginning with 1779—so that their parallelism, or the contrary, might be more easily detected. This has been done (see below) for the first 21 years of each period, viz. from 1835 to 1815 both inclusive, and from 1779 to 1759, both inclusive; and it will, I think, hardly be denied that some degree of parallelism does exist between them. In the 35 last years of each period, from 1815 to 1780, and from 1759 to 1723 the irregularities were too great to allow their being placed in a similar manner.—But I have traced out the variations from 1815 to 1780 (see the thin continuous line in the plate from 1815 to 1780), and it will be observed that the principal maxima run thus, 1815, 1806, 1796, 1787.

Now we must consider that it is only by taking an average of different cycles that we can get rid of the effect of such disturbing causes as are only temporary—say, for instance, the inroad of an army, or the decrease of the population. The average therefore of the four cycles 1815 to 1796, 1796 to 1779, 1759 to 1741, and 1741 to 1723, was taken, and this average is represented by the dotted line from 1815 to 1796, and from 1796 to 1779. It appears to be nearly regular, and probably succeeding observations may enable us to make it more correct. The dotted line from 1815 to 1835 represents the average of the two periods, 1815 to 1835, and 1759 to 1779.

Since writing my last paper I have also received a list of corn prices from the *Cape of Good Hope* from 1835 to 1812, and another from *Bickantr* in the desert for the same period. These prices have been added to those of *Dundwala* in the *Panjáb* for the same years and from the average a line has been traced similar to that of fig. 2, Plate, (Journal, No. 64.)

This long and tedious investigation was entered into in the hope that certain useful results might be obtained, and the results that have been obtained do make it highly probable that there is a certain degree of regularity in the revolution of the seasons. If the number of rain-gauges in different parts of the country should be greatly increased, and the prices of corn accurately registered, may we not hope that something more definite may be established, even so far as to enable us to fix the variation which may be due to each particular locality. Nay more, if certain combinations of light, heat, and moisture be conditions essential to every kind of animal and vegetable existence, may we not conjecture that other productions than corn are affected by peculiar

P. S. Arguing from what has been to what will be, we might join the two dotted lines in the plate for a conjectural line, the first year of which would be 1836. It would, however, first be necessary to correct the latter part. The two lines of which it is composed 1775, 1779, and 1831, 1835, are both erroneous, as indications of the seasons; the first in a considerable degree, the latter less so. To illustrate this I have added the line of the Calcutta rain-guage, 1823, 1835, which may be compared with the lines in the plate, Journal, No. 64, and I have other data, which I will arrange and bring forward at a future opportunity.

TABLE I.

Average price of Corn in Northern India, during 4 Lunar Cycles.

[illegible]

N. B. These numbers were taken from the average of the five principal lines mentioned in the paper, the whole variation in each case having been previously divided into 1000 parts.

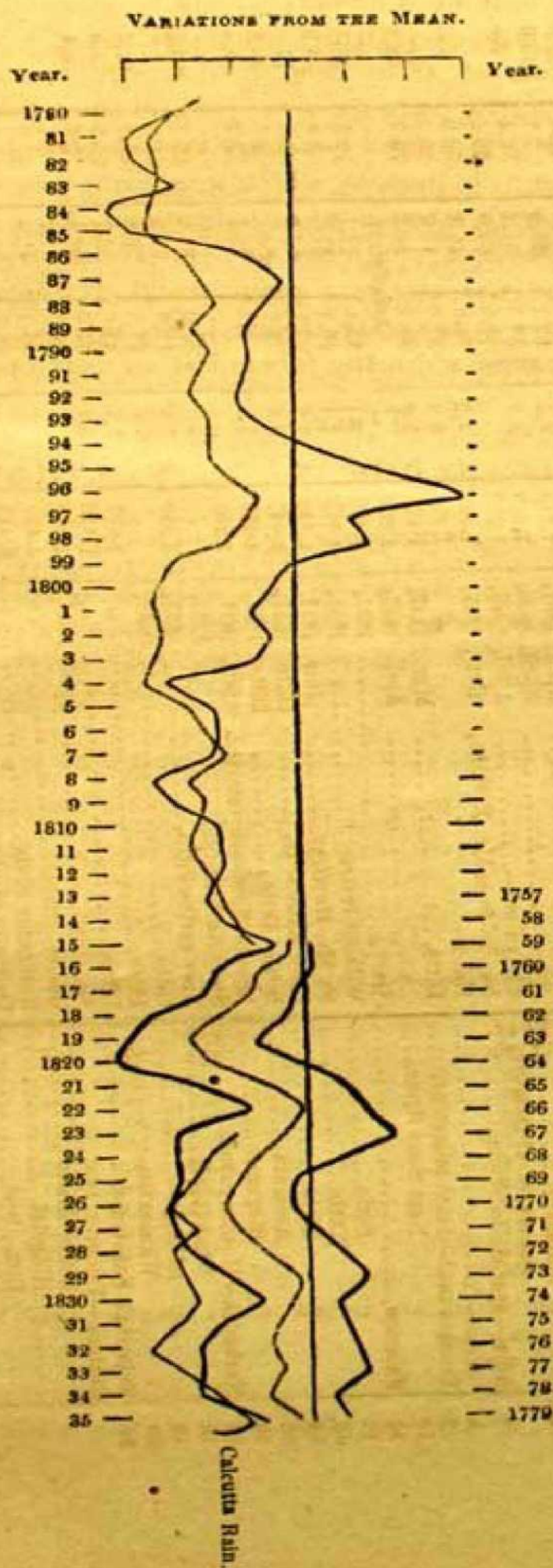
TABLE II.

Average price of Corn in Northern India.

Year.			Year.			Year.			Year.
1835,	404	345	1779.			1824,	273	356	1768.
34,	306	334	78.			23,	281	442	67.
33,	312	397	77.			22,	409	404	66.
32,	312	382	76.			21,	321	361	65.
31,	341	358	75.			1820,	188	306	64.
1830,	413	340	74.			19,	200	207	63.
29,	359	395	73.			18,	240	264	62.
28,	309	340	72.			17,	339	292	61.
27,	267	306	71.			16,	355	306	60.
26,	259	267	70.			15,	448	303	1759.
25,	285	275	69.						

These two lines are those which are traced on the diagram, and together make up a period of 6 cycles or 112 years.

Diagram of the Variations in the price of grain, from 1757 to 1835, and of the Rain at Calcutta, from 1823 to 1835.



The thin continuous line represents the variations in the price of corn, from 1780 to 1815.

The dotted line represents the average variation of four lunar cycles, viz. from 1815 to 1760, and from 1759 to 1723.

The upper thick continuous line represents the variations in the price of corn, 1815 to 1835.

The low thick continuous line represents the variations in the price of corn, from 1759 to 1779.

The dotted line represents the average between them.

The thin continuous line represents the variations in the amount of rain at Calcutta.

III.—Table of Indian Coal analyzed at the Calcutta Assay Office, including those published in the *Gleanings in Science*, September 1831, arranged according to localities, extracted from the Report of the Coal Committee.

No.	No.	LOCALITY.	QUALITY.	Specific Gravity.	Water expelled on Sand per cent.	COMPOSITION ON 100 PARTS.			Calculated per centage of Ash in Coke.
						Volatile matter.	Carbon.	Ash.	
1		Burdwan, Raniganj,	Slaty Coal,	1.334	8.0	39.5	45.9	14.6	24.0
2		Ditto, .....	.....	...	8.2	41.5	45.2	13.3	22.5
3		Ditto, .....	.....	1.362	...	32.8	54.0	13.2	24.5
4		1.450	6.4	30.0	51.6	18.4	35.6
5		Raniganj, .....	.....	1.310	6.3	37.1	55.2	7.7	13.9
6		Chinakuri, .....	.....	1.340	8.0	32.5	61.1	6.4	9.5
7		Jherria, S. of Damuda, ..	Slaty Coal—.....	1.220	...	18.0	60.0	22.0	...
8		Adjai—near the foregoing, ..	No. 1—from Mr. Erskine, ..	1.403	4.2	34.0	45.4	20.6	...
9		No. 2—.....	1.396	5.2	37.0	47.0	16.0	...
10		Benares road—149th milestone, ..	Ditto,	1.424	5.9	34.4	44.7	20.9	46.7
11		Near Sone River, .....	.....	1.260	...	insufficient	...	...	...
12		Palamoo,	Slaty,	1.482	9.1	37.4	52.1	10.5	16.8
13		Ditto,	Without lustre,	1.419	7.1	36.4	51.1	9.5	14.9
14		Ditto,	By Mr. Homfray,	1.442	7.9	29.4	63.3	7.3	11.5
15		Ditto,	Ditto Anthracite,	1.447	2.9	7.9	83.1	9.0	10.8
16		Amarath,	Ditto Ditto,	1.434	2.5	7.2	85.6	7.2	8.4
17		Bidgigarh,	Minute Specimen received, April, 1837, ..	1.260	...	...	...	...	...
18		Nerbudda—Hoshangabad,	Slaty Anthracite, .....	...	...	27.0	53.0	15.0	20.5
19		Nimbuagarh,	Very earthy ditto,	1.880	3.5	14.0	22.0	64.0	...
20		Sohagpoor,	Ditto, .....	...	6.0	25.0	29.0	46.0	61.4
21		Wardanala,	Ditto,	1.457	7.8	43.8	33.7	22.5	40.0
22		Rajmahal, Bagelpore,	Ditto,	1.540	10.0	32.0	40.5	27.5	40.4
23		Cuttack—Talebeer, best,	Slaty dull,	1.250	...	38.7	51.2	10.1	...
24		Ditto, inferior,	Glossy, friable,	1.450	...	35.2	41.9	21.9	...
25		Hingolai,	Anthracite Slate,	2.416	...	16.0	10.0	74.0	...
26		Ditto, best,	Dull with bright seams,	1.477	...	36.4	39.6	24.0	...
27		Tacorani, ditto,	Ditto,	1.527	...	32.6	35.9	31.5	...
28		Assam—upper streams,	Lignite,	1.226	...	63.1	29.6	7.3	...
29		1.196	...	56.9	31.1	12.0	...
30		1.223	...	62.8	29.0	8.2	...
31		1.244	3.8	39.9	58.1	2.0	3.4
32		1.312	15.1	48.9	47.7	3.4	7.1
33		1.320	19.8	48.4	45.2	3.4	7.0

Table of Indian Coal,—Continued.

No.	LOCALITY.	QUALITY.	Specific Gravity.	Water expelled on Sand bath per cent.	COMPOSITION ON 100 PARTS.			Calculated per centage of Ash in Coke.
					Volatile matter.	Carbon.	Ash.	
28	Assam, upper streams...	Lignite,	1.284	2.1	44.1	51.5	4.4	8.5
29	....	....	1.260	2.4	43.9	51.4	4.7	9.1
30	....	Partly silicified,	1.445	5.9	43.4	22.7	33.9	..
31	....	....	1.392	...	50.0	44.9	5.1	11.3
32	Silhet, Kasya Hills—Chirra,	Good Coal,	1.310	7.0	37.1	62.0	0.9	1.5
33	Ditto,	Slaty Bituminous,	1.520	12.3	38.4	53.4	8.2	13.3
34	Ditto,	Lignitic,	1.330	7.5	45.0	53.0	3.0	..
35	....	Brown friable, like peat, .....	...	36.0	63.6	29.2	7.2	20.0
36	....	Brown Coal,	1.398	10.1	44.4	41.1	14.5	26.1
37	....	Ditto lighter-slaty,	1.380	2.5	58.8	28.6	12.6	30.5
38	....	Friable bituminous,	1.348	7.1	42.2	41.0	16.8	29.0
39	....	Bituminous Shale,	2.042	...	22.0	26.0	52.0	66.0
40	Ava, Kuenduen River,	Jet Coal,	1.363	8.0	40.0	54.1	5.9	9.9
41	....	Lignite,	1.276	5.0	54.5	43.0	2.5	5.5
42	Manipur, Tankkiek,	Good Coal,	1.361	6.2	39.3	49.7	11.0	18.1
43	Arracan, Sandoway,	Lignite,	1.308	...	66.4	33.0	0.6	1.8
44	Syneg Kong,	Coal, .....	...	...	37.1	60.5	2.4	..
45	Oogadong,	Lignite, .....	...	...	63.0	35.5	1.5	..
46	Phuranga,	Silicified Lignite, ..	...	...	3.2	4.3	92.5	..
47	Aeng, Capt. Lumsden,	Lignite,	1.287	...	47.2	49.5	3.3	..
48	Himálaya, Kemaon,	Ditto with pyrites,	1.445	...	31.9	40.1	28.0	..
49	Moradabad Hills, near Hurdwar, ..	Average of Balia—Herbert, ..	1.330	...	...	...	...	..
50	....	Impregnated with pyrites ..	1.968	...	35.4	50.0	14.6	..
51	....	....	1.343	...	51.0	40.2	8.8	17.9
52	Peshawar—near the Indus,	Lignite of Kheri?,	1.458	21.0	56.0	37.5	6.5	14.8
53	Cutch—	From Mr. Dawc, Canal Dept., ..	1.502	13.1	44.0	41.7	14.3	..
54	Travancore,	Bituminous Shale,	1.670	...	37.0	6.2	56.8	..
55	Calcutta, boring,	Fossil Seeds, like Almonds, ..	...	...	52.0	45.0	3.0	6.2
56	Gogah, Gujerat ditto,	400 feet below the surface, ..	1.800	...	59.2	35.1	5.7	..
57	Calcutta Alluvium,	300 " .....	...	...	...	...	...	..
58	Darjiling—Sikkim,	Peat, 20 feet from surface, Canal, ..	...	...	62.0	16.7	21.3	..
59	Singapur Mangrove Wood,	Black peat earth, ..	...	...	...	23.8	76.2	..
		Used in Steamers, ..	0.733	11.0	89.3	18.9	0.8	..

Coals imported into Calcutta, analyzed at the Calcutta Assay Office.

No.	No.	LOCALITY.	QUALITY.	Specific Gravity.	Water expelled on Sand bath per cent.	COMPOSITION ON 100 PARTS.			Per centage of Ash in Coke.
						Volatile matter.	Carbon.	Ash.	
1	1	Syrian Coal, Red Sea,	With much pyrites, ..	1.335	2.5	42.1	34.2	23.7	..
2	2	....	..	1.277	2.0	37.0	58.4	4.6	7.9
3	3	New South Wales,	Average of several Specimens, ..	1.277	3.3	38.0	60.1	1.9	3.1
4	4	V. D. L. Hunter River,	Mr. Cracroft's Specimens, ..	1.360	4.9	28.4	64.6	7.0	10.8
5	5	China, ..	Glance Coal, or Anthracite, ..	1.282	3.0	7.0	91.6	1.4	1.5
6	6	English Pit Coal, ..	Imported in ..	1.273	1.5	29.0	69.4	1.6	2.3
7	7	..	.. on large scale, ..	...	...	25.0	73.0	2.0	2.6
8	8	..	.. November, 1836, ..	1.270	...	32.2	64.7	3.1	4.8
9	9	..	.. December, ..	...	...	29.7	69.5	0.8	1.1
10	10	..	.. December, ..	1.265	...	35.0	63.6	1.4	2.2
11	11	..	.. February, 1837, ..	1.352	...	26.5	73.2	0.3	0.4
12	12	..	.. May, ..	1.344	4.1	31.8	61.0	7.2	11.8
13	13	..	.. ..	...	...	40.5	54.2	5.3	9.8
14	14	..	.. June, ..	...	...	34.4	63.8	1.8	2.8
15	15	..	.. July, ..	1.284	...	35.1	62.8	2.1	3.3
16	16	..	.. ..	1.286	1.4	29.1	62.8	8.1	12.9
17	17	..	.. December, ..	...	...	31.5	67.3	1.2	1.8
			Average of English Coals,...	...	...	31.2	67.3	1.5	2.2
						31.0	67.3	1.6	2.4

J. PRINSEP,
Assay Master.

CALCUTTA, ASSAY OFFICE, }
18th October, 1837.

N. B. For Specimens marked 1831, as well as for remarks on the different varieties of Coal, see *Gleanings in Science*, III. 283.



IV.—*Extracts from the Journal of Lieut. MARKHAM KITTOE, submitted to the Asiatic Society at the meeting of the 6th Oct. 1836.—Ruins and Pillar at Jôjipur.*

[Continued from p. 56.]

Wednesday, 30th November, 1836,—Camp Chutteea. This morning's march, the distance was 14 miles, road good and no less than twenty-two bridges.

Our camp is on an open space near the *Chutteea*, no shelter, the ground so hard that it was with difficulty our tents were pitched, there being a bed of laterite a few inches below the surface; the village stands on a granite rock, the laterite adheres to and mixes with the granite in a curious manner, the strata of the rock incline at (about) an angle of 45° with the horizon (southward), the rock in such parts where the laterite (which is hard and vitrified having the appearance of brick-kiln slag) rests, is in like manner red and vitrified.

The country to the left of the road is very flat and swampy, the isolated hills alluded to yesterday, have a very strange appearance: it has often struck me as very remarkable, the abrupt manner in which all the hills met with from hence to *Rajmahal* and onwards to the *Sewalik* range, rise from the surrounding plains, in the soil of which at a distance of a few yards only, not a pebble or fragment of rock is to be found, even at very great depths*: it would seem that the whole plains of *Hindustan* had been (previous to their present state) a vast ocean of liquid mud and quicksands which had gradually settled and dried on the receding of the waters that caused its existence.

About two miles from camp, we passed between two high hills, rising abruptly as described: they are covered with dense jungle, there was

* The *Sewalik* range of hills east and west (in the immediate vicinity) of the Sutlege, rise very abruptly, from *Kidderabad* near *Rooper* to the *Jumna*, and again between that river and the *Ganges*, shingle and boulderstones are found to a very great depth. The shingle is met with at increased depths from the surface (below the common soil) in ratio as you recede from the foot of the hills towards the plains, shewing I should think, the former existence of a beach, and of the ocean having once washed the *Sewalik* range prior to the formation of the plains. During my travels along the base of the *Sewalik*, and through the *Dhoons* (valleys), of *Dhera*, *Kyarda* and *Pinjore* and to *Nahun*, *Simla*, *Mussooree*, &c. &c. in 1831, I could not help observing the peculiar manner in which the strata of shingle and boulders in some places rest, commencing at the base of the high ranges and passing under the valleys over the *Sewalik*, there dipping down on the southern face into the plains (vide sketch A). The cavities in the higher mountains being likewise filled with debris would lead one to suppose that at some remote period an ocean had shifted its position from the northern regions beyond the *Himálaya* to the southern.

indeed a great deal of jungle nearly the whole way, to the right of the road, but low land and rice fields to the left.

To the northwest of the village is a very large tank and a high mound around it, on which there are traces of there having been buildings in former years. The tank swarms with alligators and is overgrown with solah and purene (water-lily). The mounds are now covered with jungle and brambles. I remarked a figure of Buddh under a large banyan tree, it was all besmeared with sendoor (red lead) and worshipped by the villagers as the thakoor (*Mahadeo*); there were other pieces of sculpture scattered about in different directions.

Thursday, 1st December, 1836,—Camp Tanghee. Distance this morning $5\frac{1}{2}$ miles, bridges 15, road good; our camp was pitched a furlong to the right of the road, on an open space near the village, beside a tank: there is not sufficient shelter here for a whole regiment, though ample, for smaller detachments.

There are two remarkable mounds to the east of the village and left of the road, they go by the name of *Kenchuc Dhee* and (by some) *Asurá-ka Dhee* or *Tangee* both of which words, imply a "mound;" the natives say that many centuries ago, in the time of the Devatas, a dæmon (*Asura*) named KENCHUC constructed a fort here in which he used to reside: such mounds as these are very common in Upper India and are ascribed to like causes*.

I should observe that *Keechuc* or *Kenchuk* of itself means a dæmon.

I saw several fragments of sculpture under the banyan and peepul trees round the village, also some mutilated figures of Buddh.

A large tree as well as a mound, always attracts my attention and I invariably ride up to every one I see, when I am able to do so, as it is under such trees, that many curiosities are to be seen throughout India: for it is a general custom when any sculptured stones, idols or else are found in digging or by other accident, they are placed under the sacred peepul or burr.

There is a very fine view to be had of the surrounding country from the top of *Keechuc-Dhee* (where there is a small bungalow); the country to the right (facing *Cuttack*) is woody with continuous ranges of high hills which have a grand appearance. To the left, are extensive plains with a good proportion of trees on them, as far as the eye can reach; the mangoe topes at *Cuttack* are clearly visible at about eight miles in a direct line due south.

* I would call the attention of all antiquaries and collectors of ancient coins to such mounds as these so common in the *Doab* and in the vicinity of *Mathura* and *Delhee*, such as *Paniput*, *Soonput*, *Bághput*, or many other "puts" or "prastas."



There is a market held occasionally at *Tanghee* where brass utensils, coarse cloth, and shoes are sold, chiefly brought from *Cuttack*; the village is a tolerable sized one, there is a police thana: it is in the *Mogulbundee* and in the pergunnah *Kokakúnd*.

* * * * *

Cuttack, Friday, the 2nd December, 1836.—We commenced our march at 4 o'clock, and did not reach our camp (which was pitched under the east face of the fort on the river side) till ten o'clock, our hackeries did not arrive till very late, owing to the very long and heavy drag through the sand of the *Mahánuddee*, a distance of two miles.

Owing to the river not being fordable at the regular ghát, we were obliged to go more than three miles to the left off the direct road on reaching *Chaudwár*, and cross over at the ferry three miles below the fort, nearly opposite *Chowleea gunge*.

The road was very good as far as *Chaudwár* where we turned off and passed over the ruins of that ancient city, which extend for many miles. There are very few ruins above ground, but the foundations of many are visible, particularly of the walls and moat which was faced with stone; there are numerous reservoirs also, and the remains of temples; the stone was removed in former years to build the fort of *Cuttack* and the revetment; it is chiefly mottled red iron clay called laterite by mineralogists and mookura by the natives; it is a curious substance and has the appearance of vitrified clay and other earths of various colors, red, black, yellow and brown, with fragments of every description of rock imbedded in it, in greater quantities nearest the hills; it has much the appearance of brick-kiln slag, and seems to have been caused by sudden immersion into water while in its fused state, the beds of this mineral are usually near the surface of the soil, and average in thickness from 10 inches to 10 and 12 feet and even more in some localities. I have observed frequently thin coats adhering to the rocks and bases of the hills, either rising from, or bordering on, the plains; in such localities it is much more vitrified and consequently harder than that which is found resting on marl: it also contains (as I have before said) a greater proportion of fragments of quartz, granite, sand-stone, &c. &c. But to return; *Chaudwár*, the southern face of this ancient city is, and ever has been washed by a branch of the *Mahánuddee* called the *Bíroopá*, the walls along the river face are in many parts still in existence, the present village of *Chaudwár* is close to them.

STIRLING makes but little mention of this curious place, he calls it "*Chauwár* or city of four gates," it should be "*Chaudadwár* or city

of fourteen gates," if I may rely on the local authorities; history does not inform us when and why this once extensive city was abandoned, but there is a legend told by the Ooriahs, that the place was never finished, that while it was being built, and near completion, the rája one day went out hawking and let his hawk at a small white heron; they flew across the Mahánuddee, when both alighting on the opposite bank, the heron killed the hawk; the rája upon this consulted his learned men and astronomers, who pronounced that it was a warning to abandon *Chaudwár* and to build his fort on this more auspicious spot: he accordingly built the present fort of *Cuttack* upon it and called it *Barahbattee*: he then forsook *Chaudwár* which was never after resorted to.

We remained at *Cuttack* several days, the fort (*Barahbattee*) being the first object that attracted my notice. I shall first describe it, or rather, what is left of it; for it is fast disappearing, the stones being taken for various public works; the greatest drain has been for the lighthouse at False Point and for the macadamizing the cantonment roads.

The figure of the fort deviates little from a regular parallelogram having its longest faces to the north and south, the river running parallel with the former at a short distance from it.

The walls were originally defended by high square bastion towers, projecting at different distances; the place could never at any time have offered much resistance, as the walls were barely five feet thick on the three land faces, which a six lb. shot could have perforated, except on the river face, where they were not only of great height but of proportional thickness with numerous square bastion towers; the broad and deep moat faced with stone, was what the natives depended upon as their chief defence, before the invention and introduction of artillery; there is only one gateway and that in the centre of the eastern face; it is narrow and between two square towers, like the others, wide at the base and decreasing toward their summit; the archway is of comparatively modern date, and is the work of the Mogul governors of the province: there was an inner gateway which has been lately taken down to build the lighthouse with. This part of the structure, with several adjacent buildings, were the work of a Mahratta governor in the 4th year of the reign of MAHOMED SHAH, which I found thus recorded on a small stone neatly cut which was let into one of the walls.

سنہ یکہزار و یکصد و شصت و پنج ہجری مطابق سنہ چہار
جلوس احمد شاہ بادشاہ غازی

In the year of the Higera one thousand, one hundred and sixty and five, coeval with the 4th year of the reign of AHMUD SHAH the victorious king.

Over the archway was another inscription which is in the possession of the executive engineer: it was thus.

خواجه اقلیم ها گیرد دوامی	ز حشمت و شوکت رگه‌بیر نامی
زبانش معدن جود است و کامی	خوشا کذور که موهن سنگه بهادر
به پیش او چه رستم زال چه سامی	چو شمشیر گیرد گه کار زار
بتعمیر خوش باره باقی تمامی	ز حکمش کلمه دار افغان امام
همین فکر دارد چه صبح چه شامی	گه برج دروازه بالا قلعه
ز بهر هلاک عدویش دود آبی	قلعه آهنی پر ز خندق نهنگان
مورخ عالی رضا در اهتمامی	جهان دیده داروغه سان کن گرا
که رگه‌ناتپه دروازه قایم مدامی	زهاتف بپرسید تاریخ گفتا

It is certainly not a very elegant composition, indeed native judges pronounce it execrable and unintelligible: the following is as correct a translation as I can make.

"From the splendor and state of one named RUKHBEER; may he ever possess the revenues of foreign countries. What an excellent prince was MOHUN SINGH BEHADUR*. His speech is a mine of desire and beneficence.

"When in the time of need he takes up his sword, what are RUSTUM, ZAL or SAMEE before† him. By his order the Killadar IMAM AFGHAN (KHAN), occupied himself night or day with the care of putting fort Barahbattee wholly in excellent repair, with a gateway and tower to it mountain high. This fort first of iron, next a ditch filled with alligators, is at once a double trap for the destruction of its enemies.

"The experienced daroga ALLEE RUZA native of Kurrá as chronologist, employing himself to find a date asked it of the hidden sound (voice) which replied, May the Rughnath gateway ever remain permanent."

I cannot discover who were the individuals whose praises are thus recorded, unless they were some of the officers of the Mahratta government; I can neither find the name of PUKHBEER nor of MOHUN SINGH, in STIRLING'S work.

* Perhaps MOHUN SINGH was son of RUKHBEER? the passage is obscure to me as well as to Moonshees I have shewn the verses to.

† Opposed to.

In the year 1174, A. H. which the last line gives by the rules of the *abjid*, the province of *Cuttack* was in the hands of the Mahrattas, under BABAJI NAIK. If the date, on the other hand refers to the Amli year 1174, which answers to A. D. 1765, or thereabout, it was during the administration of BHOWANY pandit, the Mahratta governor of plundering notoriety who succeeded SHEOBHAT in 1171 Amli*. The persons thus mentioned may have been the military governors, under either of these supreme rulers.

On our taking possession of the fort in 1803, the ditch was drained and the numerous alligators destroyed or allowed to escape into the river: there are but few to be seen at present and none of any size.

The walls and other masonry are of laterite and sandstone, most of the towers are faced with the latter. The most striking object is the cavalier, which is I suppose the "mountain" alluded to in the inscription, this has evidently had a subsequent facing of sandstone added to it and forms a part of the original "gurrh or keep of the castle."

There is an old mosque with no pretensions to elegance, the work of the Mogul occupants.

The candelabra mentioned by Mr. STIRLING has been removed to a garden in *Chowleegunge*, it is a *chirág-dán* about 15 feet high and of mogunee or chlorite; being an octagonal pillar $1\frac{1}{2}$ feet at its base and about 10 inches at its summit on which is a vase the shape of a lotus, but intended to hold a "tulsee" plant, it is not one shaft, but a number of layers about 10 inches deep, each having four brackets projecting out of four of the sides of the octagon, and every other layer having its brackets on different faces so as to allow of one blank every way between each bracket; it is of modern workmanship and belonged to a temple built by the Mahrattas which was pulled down many years ago, and was used for illuminations at the Dewallee festival: there is another very like it, before a temple, in the cantonment by the river side, also built by the Mahrattas.

* * * * *

The town of *Cuttack* is very straggling: there are a number of very good houses of hewn stone and brick, but mostly in very indifferent repair from the poverty of their inmates.

The principal building is the "*Kuddum Russool*" in the suburbs, over the gateway of which is the following inscription.

بدرگاه خدیو در جہانی مرتب گشت نوبت خانہ دین
پناہ عالم انسی و جانی بعد شاہ عالم گیر ثانی

* Vide STIRLING'S Orissa, As. Res.

چو فرزند مصالح دین محمد بدرگاه نبی این قصر آراست
 که دیدار علی نامش بدانی خدا حاصل کند مقصود جانی
 سوال سال تاریخش چو کردم چو ظلال کفر را سرشکنی زد
 سروش غیب گفت از مهربانی ز فوشت خانه این سال خوانی
 سنه ۱۱۶۹ هجری

The building in which are placed the sacred relics, has no pretensions to elegance of design : the enclosure and the ground surrounding it is chiefly used as the common burial place for the moslem inhabitants. The Peer-zadas or priests, make a tolerable profit in sickly seasons as they charge from 1-4 to 2 and 3 rupees for each grave dug. The foregoing inscription alludes simply to the gateway and music gallery over the same ; it appears to have been built in the year A. D. 1755, when the province of *Cuttack* was in the hands of the Mahrattas. I cannot ascertain who the individual "DEEDAR ALLEE" was, or what office he held at *Cuttack*, it is however immaterial, the building is not worthy of notice. The following is a translation of the verses.

"At the shrine of the Lord of both worlds, the asylum of human beings and of the Jins, the music gallery of the faith was constructed, in the reign of ALUMGEER SANI, (ALUMGEER the 2nd.) If the offspring of the good in the faith of MUHAMMAD, know that his name is DEEDAR ALLEE, at the shrine of the Prophet he erected this palace, may the Lord grant the wishes of his heart. When I asked the year of its date, the hidden angel (voice) replied with condescension, 'When the king broke the heads of infidels, read the year (in)' 'of the music gallery of the faith,' (year of the Hegira 1169.)"

The Jumma Musjid in the principal street is also a very clumsy inelegant building : it is used as much as a school as for a place of prayer. There is now scarce any thing remaining of the palaces of the *Lál-bág*. The Hindu temples are all small and inelegant and none of any antiquity ; there is however one temple of large dimensions which has never been finished, it was commenced by one of the Mahratta governors who did not live to complete it : it is about 70 feet high. The largest dwelling houses are those of the former *ámils* and governors, they are all fast falling to the ground.

There appears to be very little trade carried on in *Cuttack*, the chief manufactures are brass cooking utensils, and shoes for which the place is famous.

The soil of *Cuttack* is sandy and very poor : rice is the only cultivation, the gardens are consequently very inferior.



V.—On a remarkable heat observed in masses of Brine kept for some time in large reservoirs. By G. A. PRINSEP, Esq.

In the course of my experiments of several years in the manufacture of salt at *Balya Ghât*, on the salt-water lake east of Calcutta, I have sometimes observed a high degree of temperature at the bottom of the brine reservoirs after they had been filled for some weeks with brine of less than one fourth saturation. But as the greatest heat observed did not exceed 104° Fahr. which was under the maximum heat of the brine on the terraces, whence the reservoirs had been filled, I supposed the high temperature to be merely that of a warm stream of water let in at the hottest part of the day in May or June, and remaining below and unmixed with the cooler surface water, of less specific gravity, afterwards admitted. This opinion was strengthened by the gradual reduction of the temperature below to nearly that of the surface, before the end of the rainy season. I have frequently bathed in one of the reservoirs (about 550 feet long, 35 ft. wide at top and 7 or 8 feet deep), in September and October, and have found the temperature of the water then pretty equal throughout. But on plunging into the same reservoir on the 17th September last, I was surprised to find the temperature near the bottom so warm as to be intolerable to the feet. Still however I imagined that the heat was only that which the sun had imparted to the terrace brine in the very sultry weather of June last, when I had 120° registered (4th June, 4 P. M.) for the brine of a terrace yielding salt: and believing the hottest water to be therefore near the bottom I tried the temperature there about a month afterwards by immersing an empty bottle at the end of a bamboo, fixing the mouth so that it would be filled about a foot from the ground. The contents when poured out were at the temperature of 120° . A similar experiment made on the same day in a circular brine reservoir at *Narainpore* (120 feet diam. and about 16 feet deep) gave 104° . But on a subsequent visit to *Narainpore* on the 29th October, I was startled to observe that a pump fixed against the wall of this reservoir, for the purpose of feeding the boilers, was actually bringing up water of the temperature of 130° from a depth of about 12 feet. This very unexpected discovery determined me to contrive an instrument that should serve as a probe to ascertain both the temperature and the specific gravity or saltiness of the water at different depths. Annexed is a drawing of the instrument employed: it consisted of a split bamboo with bamboo buckets fixed between at distances of one foot from centre to centre, the mouths of the buckets being corked but the corks having small air-holes; and the mode of using the machine was, to let it down with the mouths of the buckets downwards, and then turn it round after which the air bubbles indicated the progress.

of filling and in ten minutes or a quarter of an hour, when these disappeared, the machine was quickly drawn up and the temperature of the water in the buckets was tried rapidly in succession with a small thermometer, leaving the specific gravity to be tried afterwards.

On the day of the first trial of this probe I was favored with the company and assistance of Dr. HUFFNAGLE, who took a lively interest in the experiment. The following particulars are the results of all the trials I have yet made with it, the buckets being numbered from the bottom of the machine.

First Experiment, 5th November, 9 A. M.
Open long reservoir at Balya Ghât,
Probe immersed at an angle of 45 or 50°.

No.	Temp.				
1	106	only $\frac{1}{2}$ full.			
2	120	S. G. (appt.)	1077	at T.	117
3	120 $\frac{1}{2}$	"	1073.5	"	116 $\frac{1}{2}$
4	113	"	1071	"	110
5	99	"	1049	"	97
6	80	"	1022	"	80
7	78 $\frac{1}{2}$	"	1022	"	78
8	78	"	1021	"	78
9	78	"	1023.5	"	78

Second Experiment, 5th November, 2 P. M.
at Narainpore.

Open round brine reservoir. Probe at angle about 60° southwest side.

No.	Temp.				
1	105	(appt.) S. G.	1163	at T.	100
2	104	not full.			
3	106	(appt.) S. G.	1140	"	104
4	113	"	1160	"	108
5	117	"	1161	"	113
6	123	"	1157	"	117
7	130	"	1159	"	123
8	132	"	1153.5	"	124
9	137	"	1145	"	130
10	131	"	1121	"	125
11	127	"	1100	"	120
12	122	"	1090	"	114
13	114	"	1075	"	109
14	104	"	1065	"	101
15	100	"	1065	"	97
16	85	"	1040	"	84
17	84	"	1044.3	"	83
18	82	"	not full.		
19	82	"	1038	"	81

Third Experiment, 5th November, 2 $\frac{1}{2}$ P. M.
Same place and reservoir east side at gate. Probe at angle about 75°.

No.	Temp.				
1	102	(appt.) S. G.	1149	at T.	100
2	106	"	1145.3	"	103
3	109	not full.			
4	114	S. G.	1175	"	111
5	119	"	1165.5	"	116
6	128	"	1159	"	124
7	137	"	1155	"	130
8	133	"	1139	"	128
9	135	"	1125	"	127
10	127	"	1097	"	120
11	114	"	1075	"	109
12	105	"	1068	"	101
13	92	"	1050	"	90
14	86	"	1040	"	84
15	82 $\frac{1}{2}$	"	1038	"	81
16	81 $\frac{1}{2}$	"	1037 $\frac{1}{2}$	"	81

Fourth Experiment, 19th November, 2 P. M.
at Narainpore.

Open round brine reservoir southwest side. Probe at angle 60°.

No.	Temp.				
1	104	(appt.) S. G.	1150	at T.	102
2	108	not full.			
3	108 $\frac{1}{2}$	S. G.	1150	"	106
4	114	"	1148	"	112
5	125	"	1166	"	120
6	132	"	1151	"	124
7	136	"	1142	"	127
8	133	"	1126	"	128
9	127	"	1095	"	120
10	124	"	1070	"	110
11	117	"	1061	"	104
12	99	"	1057	"	96
13	90	"	1047	"	90
14	83	"	1046	"	83
15	81 $\frac{1}{2}$	"	1045.6	"	83
16	81	"	1045	"	83
17	82	"	1045	"	83

Fifth Experiment, same date and place.
Covered reservoir. Probe at angle about 70°.

No.	Temp.				
1	88	(appt.) S. G.	1147		
2	88	"	1124.5		
3	90	"	1107		
4	91	"	1107		
5	90	"	1102.6		
6	90	"	1094		
7	89	"	1081		
8	86	"	1078		
9	87 $\frac{1}{2}$	"	1069		
10	—	empty.			
11	82	"	1054		
12	80	} not full.			
13	77				
14	76		1046		
15	76		1046		

Sixth Experiment, same date and place.
Large reservoir. Probe at angle about 80°. Tried at 2 $\frac{1}{2}$ P. M.

No.	Temp.				
1	93 $\frac{1}{2}$	(appt.) S. G.	1070		
2	93 $\frac{1}{2}$	"	1070		
3	93	"	1069		
4	92	"	1067		
5	91 $\frac{1}{2}$	"	1064		
6	90	"	1064.5		
7	87	"	1057		
8	85	"	1056		
9	84	"	1050		
10	84	"	1050.5		
11	84	(not full).			
12	84	"	1050		

Seventh Experiment, 3rd December, 2 P. M. at Narainpore.

Open round reservoir, tried in the centre, probe nearly perpendicular.

No.	T.	half full.	S. G.	at T.
1	107	half full.	1151	106
2	110	apparent	1150	110
3	114	"	1143.5	118
4	118	"		
5	125	half full.		
6	124	"	1114	116
7	116	"	1095	112
8	105	"	1078.5	103
9	96	"	1063.5	93
10	92	"	1059	90
11	87	"	1054	
12	86	"	1053.7	
13	84	half full.		
14	82	"	1052	
15	81	"	1053	
16	82	"	1052	
17	82	"	1051	

In the first trial at *Narainpore* the greatest heat was found about half-way from the bottom. The difference in that respect at *Balya Ghât* where the greatest heat appeared at the second and third foot from the bottom may be explained, by the small depth of the reservoir at the latter place, the surface water being liable to be affected to the same depth in both by the wind and rain and temperature of the atmosphere, and the subsequent descent of the maximum heat at *Narainpore* is attributable, in part to the expenditure of the brine there being pumped out from near the bottom for the supply of the boilers. The highest temperature given by the probe at *Narainpore* was 137° , but this is 5° less than the maximum given by the pumps, as will be seen by the following statement.

Date	N. pump	T.	S. G. (corrected)	S. Pump	S. G.
29 Oct.		130	1180		
12 Nov.	"	138	1170		
19 "	"	142	1162		
26 "	"	140½	1152		
3 Dec.	"	137	1133	134	1172
10 "	"	124	1173	124	1158
17 "	"	125	1153	124	1175
24 "	"	119	1173	116	1171
31 "	"	116	1174*	114	1179
7 Jan.	"	102	1133	106	1128
13 "	(sunk 2 feet)	104	1177	100	1132
4 Feb.		90½	1100	92	1119
10 "				90	1110

As the temperature of 90° was only about the mean of June, and also that of the lower moiety of the brine in the covered reservoir on the 19th November, which was all nearly of an equable temperature, I consider the influence of the heating course to have ceased in the first week of February, if not before. The reservoirs have since been pumped dry and therefore these experiments cannot be repeated, until they are replenished with brine in April or May next.

It is remarkable that the probe indicated no signs of a heating influence affecting the water in the large reservoir at *Narainpore* on the 19th November though the specific gravity of the brine near the bottom was little less than that of the water in the long reservoir at *Balya Ghát* on the 5th November, its mean spec. grav. being also considerably higher than the mean of the latter. Moreover the heating influence was scarcely traceable in the covered brine reservoir at *Narainpore* on the 19th November, which perhaps may be accounted for by the large previous expenditure of brine, say about three-fourths of its original contents, the consumption of which had been replaced to within a foot of the general level by filtration from the ground and leakage at the gate communicating with the adjoining terrace and brine fields; whereas the expenditure of brine in the contiguous open round reservoir otherwise similarly situated, was but half of the original contents up to the middle of January, its entire volume being about 170,000 cubic feet, while the covered reservoir contained only about 50,000. In these two reservoirs all the brine when first let in was of a high degree of saturation, ranging from 1170 to 1200 sp. gr. and consequently containing little or no sulphate of lime, which ingredient in the composition of sea water, I have observed at *Balya Ghát*, is always deposited upon the terraces there, considerably before the brine begins to deposit its sulphate of soda. But this was not the case with respect to the brine in the large reservoir at *Narainpore*, nor in that of a longer narrow one at *Balya Ghát*, except perhaps a small proportion of the latter, both of which were charged with brine of only 1070 to 1085 sp. gr., a much higher degree however than that of the contents of the long reservoir in any previous year; and in both of them the water had remained undisturbed, except by the action of the atmosphere; yet in one of them a high degree of heat was observed, and in the other where I should sooner have expected to find it, no indication of heat was perceived beyond the probable temperature at which it was filled in June.

In order to ascertain however whether any fermentation and disengagement of heat takes place on the mixture of saturated brine with brine of a weaker degree, I lately procured from *Balya Ghát* some bottles of brine of different degrees of saturation, with which the following experiments were tried.

1st Experiment.—Half a pint of saturated brine sp. gr. 1216, temperature 82.5 mixed with about the same quantity of brine of sp. gr. 1069, temperature 81.2. Result, temperature 82.2 and no effervescence after standing some minutes.

2nd Experiment.—Same quantities of brine sp. gr. 1216, tempera-

ture 82.5, and of brine sp. gr. 1091, temperature 81°. Result, sp. gr. 1152.5, temperature 82.2 and no effervescence.

3rd Experiment.—Same quantities of brine sp. gr. 1216, temperature 82.5, and sp. gr. 1135, temperature 81.6. Result, sp. gr. 1174.3, temperature 82.1 and no effervescence, nor any increase of temperature after remaining some hours in the glass.

Being therefore quite unable to offer any explanation of the cause of the remarkable heat observed in my brine reservoirs, I can only promise to register the temperature from time to time when they are filled again in the hope that materials may thus be furnished to some scientific friend more capable of solving the interesting problem. If it should be discovered that a slow fermentation arising from the mixture of brine of different densities in large masses is the cause of this heat, it would seem to be accelerated by agitation, for the water raised by the pumps was always warmer than that which the probe brought up from the same depth; and, except at the first trial at *Narainpore*, always hotter than the maximum given by the probe.

VI.—*On the Land and Fresh-water Shells of the Western Himálaya.*

By Lieut. T. HUTTON, 37th Regt. N. I. and W. H. BENSON, Esq., C. S.

The following catalogue chiefly refers to shells which I have lately discovered, almost all inhabiting the western portion of the *Himálaya* in the neighbourhood of *Simla*, and extending upwards from *Monimajra* at the extreme verge of the hills, to the *Burenda Pass* on the Snowy range. In the description of the various species, I have availed myself of the valuable assistance of Mr. BENSON, C. S. whose extensive collection of terrestrial and fluviatile shells from all parts of the world, and whose greater experience in this branch of natural history, have enabled him to do more justice to the subject, than I could have done without assistance. In order, however, that each may in some measure stand responsible for his contributions, an initial letter will be found affixed.

Although most of the shells belong to the hills, a few were collected on the route from *Neemuch* in the cold season of 1835-6.—“The most interesting of these acquisitions is an unique specimen of an ‘*Ancylus*’ the first of this Patelliform genus yet discovered in India, if not in Asia*.” It occurred adhering to a dead specimen of *Paludina Benga- lensis*, in the *Kali Nuddi* at *Bolund Shehr*.

It is interesting to observe the wide distribution of these tender beings, and to trace the gradual and almost insensible yielding of one species to another as the elevation or the climate varies. The shells of our lowland provinces, for descriptions of which we are chiefly indebted to Mr. BENSON, here give place, as the temperature becomes cooler, to forms more nearly resembling those of Europe, some still advancing a short way into the hills, but impatient of the chills of our mountain winters, confining themselves to the valleys of the lower ranges around *Subathu*.

One species, however, the "*Nanina vesicula*" described by me as "*Helix* 29" in the third volume of the Asiatic Society's Journal, as occurring between *Neemuch* and *Mhow*, and since discovered by Mr. BENSON in the *Rajmahl* range, seems alike to defy the heats of the provinces and the winter of the hills, ascending even beyond the height of 10,000 feet above the sea. It ranges therefore over the central and western tracts of this presidency, and occurring in profusion along the verge of the hills at *Mansir Dèbi*, mounts to *Subathu*, *Simla*, and *Hattú* mountain, preserving everywhere the same habits, creeping over every plant and shrub during the rains, and concealing itself beneath stones and at the roots of trees, with the aperture closed by an unattached calcareous operculum. From its occurring on *Hattú*, it is probable that it may be met with at inferior elevations throughout this portion of the hills.

Another species, the "*vitrinoides*" of DESHAYES, inhabiting the *Rajmahl* range, and extending also to the western frontier, advances upwards only to *Subathu*, and its neighbouring valleys, passing at *Simla* into a strong variety possessing the same form, and partaking of the same habits and general economy.

"*Succinea crassiuscula*," (BENSON,) has also a wide range and is apparently to be met with throughout the provinces, occurring abundantly, according to Mr. BENSON, in the compound of the Asiatic Society's Rooms in Calcutta, extending through *Bahar* and *Allahabad* to the western frontier, and advancing to the hills as high as *Subathu*.

With the exception of "*Nanina vesicula*" the shells we are about to describe, appear to be peculiar to these hills, differing in toto from those of the *Sylhet* collection, yet with them forming that beautiful connection, which is seen to pervade all nature.

In giving *Subathu* as the probable boundary beyond which the species of the provinces do not occur, it must be borne in mind that I would be understood to mean, not that they are never found more in the interior of the hills, but simply that they do not rise to a greater



elevation, for where the temperature assimilates to that of the plains, there may we expect to find the plants and animals adapted to it. Such an expectation is, at least, fulfilled, in the portion of the hills I have been fortunate enough to visit; thus for instance at *Rúrá* about 5000 feet above the sea, in the valley of the *Pabbar*, where the temperature in the summer months is somewhat high, plants which flourish abundantly around *Neemuch*, are intermingled with others peculiar to the hills, and again around *Subathú* at an elevation rather beyond 3000 feet, that beautiful flower the "*Gloriosa Superba*" and many species of convolvulus, so common in the jungles of *Meywar*, are seen, as well as the bhéla, bamboo, and other plants of the provinces, surrounded by the vegetation of the mountains. Thus, then, at elevations where the plants of the hills and plains are seen mingled together, it is natural to look for a similar fact in the animal kingdom. And with regard to the Mollusca we shall find it so.

Yet though we find some species common to the plains extending far into the hills, there is nevertheless a well marked line of elevation beyond which the welfare of the general number forbids them to pass. Thus, while "*Nanina vesicula*" is found roaming throughout the hills, apparently at all elevations up to 10,500 feet, other species which in the plains of India are found in company with it and at the same seasons, never mount beyond a third of that height, confining themselves to the warmer valleys at about 3 to 4000 feet above the sea. Among these are "*Nanina vitrinöides*" and "*Succinea crassiuscula*" which around *Subathu* are found in company with species peculiar to the hills, such as "*Helicarion cassida*" and "*Pupa pulchella*" which are never found in the plains, while the former are not met with in the higher and colder hills. To this region also, "*Pupa pulchella*" would seem more properly to belong.

Here then we have a well marked frontier line of elevation, rich in the plants of hills and plains and producing a species peculiar to itself, separating, as it were on either hand, the animals of the highlands and the lowlands.

"When temperature, says LYELL, forms the barrier which arrests the progress of an animal or plant in a particular direction, the individuals are fewer, and less vigorous as they approach the extreme confines of the geographical range of the species."—"In almost every district, especially if it be mountainous, there are a variety of species the limits of whose habitations are continuous, some being unable to proceed further without encountering too much heat, others too much cold. Individuals, which are thus on the borders of the regions proper to their re-

spective species are like the outposts of hostile armies, ready to profit by every slight change of circumstances in their favour, and to advance upon the ground occupied by their neighbours and opponents*.—T. H.

No. 1. *Helicarion cassida*, HUTTON.—Testâ ovato-depressâ, pallidè corneâ radiatim striolatâ, junioris epidermide sericeâ, ætate nitore orbatâ, anfractibus (penultimâ etiam intra aperturam) ventricosioribus; aperturâ patulâ, rotundato-ovatâ; spirâ convexâ, apice exsertiusculâ, minime obtusatâ, anfractibus 5 velociter crescentibus.—(B.)

Greatest breadth 1 inch 2 lines.

This shell has a more exserted spire than any other species known to the writers. This character, notwithstanding the great size of the aperture, coupled with the ventricose appearance of the penultimate whorl within the aperture, gives the shell an Heliciform air. It is very closely allied in habit to a species lately received from *Almorah*, but differs from it in its greater size and paler color, and in the want of the polish which is observable in the *Kemaon* shell. It equals in magnitude the *Sylhet* "*Vitrina gigas*," from which singular Macrostomatous species it altogether differs in form.—(B.)

At *Simla* it is not uncommon during the rains, or even after heavy showers at other seasons, creeping out from the holes of stone walls and the crevices of rocks with the grey colour of which its own hue assimilates so much when concealed by its mantle, that it is not easily discovered. It occurs from *Bhar* to *Simla* but most abundantly between the former place and *Subathú*.

Animal varying in colors, sometimes pale brownish, at others dark grey. Two broad leaf-like processes running to a point, are spread over the shell when the animal is in motion, so as entirely to conceal it, and presenting the appearance of a large grey slug with a hump-back; a fleshy anal horn, as in the genus *Nanina*; foot very long; tentacula 4, the superior pair longest, buttoned at the tips and bearing the eyes. Orifice on the right side below the leaf-like process.

Shell large, of 5 whorls, ventricose, suddenly increasing, the body whorl forming nearly all the shell. Transversely wrinkled by the lines of growth; aperture transverse, ovate, broader than long, discovering the previous whorls; margins acute, interrupted on the body whorl. Epidermis varying in colors from yellowish to olive green. In young specimens lustrous when placed on its spire, the aperture appears as if the pillar lip had been obliquely sliced off. The animal carries the shell horizontally on its back, the spire pointing upwards.—(H.)

* LYELL'S Geology, vol. II. page 172.



No. 2. *Nanina vitrinöides*, DESHAYES.—This species occurs in the *khads* or valleys around *Subathú*;—at *Simla*, there is found a variety with a rib-like incrassation within the aperture like many of the specimens of another variety found in Bengal. It attains a large size, and the animal is of a dark-green color. It is scarce at *Simla*, and is found only on very wet rocks in the *khads*, keeping up the character which it bears in the plains of being essentially a moisture-loving snail.—(H. and B.)

No. 3. *Nanina monticola*, HUTTON.—“*Testâ subdiscoideâ, pallidê vel saturatê brunneâ, epidermide radiatim et concentricê rugosulâ, spirâ depresso-conöideâ, apice obtusatâ; periphæriâ minimê angulatâ, suturis leviter impressis, aperturâ transversâ, lunatâ, labro costâ interni sub-marginali albidâ munito.*”—Diam. 1.75.—(B.)

“Umbilicus as in the genus. The shell has a very moderate polish and is sufficiently distinguished from ‘*vitrinöides*,’ on the one hand, and from ‘*decussata*’ on the other by the radiating wrinkles interrupted by concentrically disposed depressed lines, which give the surface of the shell a rough aspect, very different from the finely decussated surface of ‘*decussata*.’ Mr. BENSON has specimens of a variety of ‘*vitrinöides*’ taken in Bengal, resembling ‘*N. monticola*’ in form and in the internal rib of the aperture, but well distinguished by the want of the rugose surface, which appears to have been as it were, planed away to the base of the depressions. The larger specimens of ‘*N. monticola*’ obtain a considerable thickness, and there are visible three or four internal varices at various distances, occasioned by the ribs at the apertures of former growths.

“Lieut. HUTTON has observed the dark and light colored varieties in *coitu*, and has remarked that the latter were those which were fecundated. The eggs which were deposited in rotten wood, were oval and greenish white, and about the size of a mustard-seed.

“The color of the animal is a dirty brown. The dark-colored variety is the more frequent of the two, although both occur of every size. They are abundant at *Mahássú* under fallen timber, and in the rainy season they climb the stalks of plants, feeding upon the leaves. The largest specimens occur at *Hattú*, among the ruins of the old forts which crown that mountain. Young specimens were met with among junipers at *Lítá*, at an elevation not much under 14,000 feet.”—(B.)

No. 4. *Nanina splendens*, HUTTON.—“*Testâ discoideâ, purpureo-brunneâ, politâ, leviter concentricê et radiatim striatâ, striis radiatis remotis, illis confertissimê dispositis; spirâ vix elevatâ; anfractibus sep-*

tem, (apice omissá) arctè convolutis; aperturá lunatá, labro strigá incrassatá interni distante munito."—Diam. 0.65.—(B.)

Animal as in the genus; the color a dark verdigris green.

This beautiful species is found in great abundance in the forest of *Mahássá*, beneath fallen timber, and in the hollow trunks of decaying trees; it is also plentiful at *Fágú* and *Nágkunda*, at 9,016 feet, and has been met with at *Hattú*, at 10,656 feet. All these places have a greater elevation than *Simla*, where it has not yet been discovered.—(H.)

"The closely packed whorls shewing a larger number in a smaller diameter, at once distinguished this species from all the darker colored and more depressed varieties of *Nanina vitrinöides*."—(B.)

No. 5. *Nanina vesicula*, BENSON.—Testá tenui depressiusculá, pallidè corneá, translucente, politá, súprá conoidá; apice acuminatá; infra tumidiúsculá; aperturæ longitudine latitudinem æquante; labro subrecto ad axem spectante.—Diam. 0.6. Whorls six in number.

"This shell has a wide geographical range, and is yet very local. Lieut. HUTTON first met with it between *Neemuch* and *Mhow*, and noticed without naming it in the 3rd vol. of the Journal, p. 521. Mr. BENSON subsequently observed it at the effluence of the *Bhagirathi* from the Ganges, and at *Rajmahl*, and noticed it as a novelty in p. 357, vol. 5. Lieut. HUTTON again met with it abundantly at *Simla*, where it preserves the habit as at *Rajmahl* of climbing on plants, a circumstance so rare with respect to '*vitrinöides*' that it can only be looked upon as a casual exception to its custom of creeping on the earth, on rocks or mossy masonry. The animals first taken by Lieut. HUTTON, were doubtless observed in too dry an atmosphere, as he then failed to remark the extensile tentacular processes of the mantle which preserve the fine polish of the epidermis; and the oval process surmounting the mucous pore must have been in a contracted state.

"The straightness and verticality of the left lip of the shell, the great comparative length of the aperture, and the acuminate spire abundantly serve to distinguish this species."—(B.)

No. 6. *Nanina fragilis*, HUTTON.—Testá tenui, fragili, vitreá, olivaceá, conico-discoideá; spirá subexsertá, apice obtuso; anfractibus 5, suprà convexis, subtùs subplanatis; aperturá obliquá, rotundato-ovatá; peritremate acuto."—Diam. 0.35 poll.—(H.)

This small and fragile species was found at *Kirmalliah*, about 5 miles from *Neemuch*, crawling over the leaves of the *Dhák* bush or *Pulas* tree (*Butea frondosa*), on which it appeared to feed. It is a very thin fragile species, and the smallest of any of the genus I have yet seen.



No. 7. *Helix humilis**, HUTTON.—“ Testâ parvulâ, convexo-depressâ, corneâ, latâ et profundè umbilicatâ; anfractibus quinque rotundatis, ultimo subangulato, penultimo aperturam circularem vix interrumpente; peritremate acuto.”—Diam. 0.125.—(B.)

Animal Heliciform; dark-grey or blackish.

Occurs at *Simla*, on moist rocks, on wet dead leaves, and at the roots of shrubs in the *khads*. It is very abundant during the rains, but is so small and so like the earth in color that a very close search is necessary to effect its detection. It is very nearly allied to the British species “*H. umbilicata*” (*H. rupestris* of DRAPARNAUD), but is distinguishable by its somewhat larger size, and by its rather more open umbilicus.—(H. and B.)

No. 8. *Helix orbicula*, HUTTON.—“ Testâ orbiculato-convexâ, fuscescente, epidermide scabiâ; anfractibus sex convexinsculis; periphæriâ subangulatâ; umbilico-profundo latiusculo; peritremate subrotundato, acuto.”—Diam. 0.4.—(B.)

The animal is Heliciform with a short foot tapering posteriorly; color pale watery brown. It closes its shell with a false operculum and is met with under dead leaves and moss, on damp rocks and at the roots of trees at *Simla* and *Mahássú*. Less common than the last described species.—(H.)

“ A specimen of this shell, the largest of the *Simla* examples of the genus *Helix* as at present restricted, occurs in an interesting collection made for Mr. BENSON by Dr. CHAPMAN, at the *Darjiling* Sanatorium.

“ This collection includes forms peculiar to the *Siccim* mountain forests, as well as others met with at both extremes of the Indian *Himálaya*. The new forms alluded to are *Achatina* belonging to the group *Polyphemus*, and a strong and handsome *Cyclostoma* approaching in habit to, but somewhat larger than the European fossil species ‘*C. Mumia*,’ abundantly distinguished from it however by the rounder and more reflected orange peristome, and by its central position at the base, as well as by the delicate sculpture, and an embossed spiral cord which winds from above the umbilicus to the base, whence the species has received the trivial appellation of ‘*Funiculatum*.’ It is the first known Indian species belonging to the pupæform or subcylindric division of *Cyclostoma*.”—(B.)

No. 9. *Helix fastigiata*, HUTTON.—“ Testâ parvulâ, albidocor-

* A reversed variety of this shell occurs at *Fágá*, in decayed trees, differing thus in habits from the dextral species which affects rocks and dead leaves principally. The shell is of four whorls exclusive of apex, finely wrinkled by the lines of growth; umbilicus discovering the previous volutions.—Diam. $1\frac{1}{2}$ lines. In all respects resembling the dextral shell.

neâ, minutissimè granulatâ, pyramidatâ, subtiles plano-convexâ, anfractibus septem convexiusculis, ultimo acuto angulato, suturis leviter impressis, umbilico evanescente, aperturâ latiore quàm longâ; apice obtuso."—Axis 0.16.

Animal Heliciform, greyish, darker on the tentacula. Found on dead leaves at *Simla*, in the *khads*, and when in motion carries its shell upright. It is not uncommon, but its smallness renders it difficult to collect.—(H.)

"It is more lengthened proportionally than either '*H. turbiniformis*' of *Patargatha* and *Berhampore*, alluded to in p. 357, vol. 5, of this Journal, or the European species '*H. conica*' and '*convidea*.' In size it is much inferior to any of the three. It differs altogether from the two latter in substance and coloring which approach to those of '*H. turbiniformis*,' but the animal does not appear to exhibit the beautiful dark patches on a light ground which render that shell so conspicuous, when the animal is alive, by the appearance of the tints through the translucent shell; and the sculpture is altogether different."—(B.)

No. 10. *Helix bullula*, HUTTON.—"Testâ parvulâ, glabrâ, translucente, sub-trochiformi, conoideâ; anfractibus quinque convexis, ultimo rotundato; suturis impressis; umbilico angustato; aperturâ latiore; labro simplici."—Diam. 0.15.—(B.)

Found with the preceding species among dead leaves at *Simla*.

No. 11. *Helix nana*, HUTTON.—"Testâ parvulâ, convexo-conoideâ, pallidè fuscescente; anfractibus sex aut septem arcuè convolutis, ultimo rotundato; aperturâ latiore, labro simplici; umbilico evanilo; apice valdè obtuso."—Diam. 0.1.—(B.)

Animal Heliciform; color dark-grey. Accompanies the last two species and occurs in the greatest abundance. It is nearly allied to the British species '*H. trochiformis*,' (fulva, DRAPARNAUD,) but the more closely wound whorls sufficiently distinguish it.—(B.)

No. 12. *Helix planiuscula*, HUTTON.—"Testâ parvulâ, depressâ fuscâ, politâ; anfractibus quinque, ultimi periphæriâ rotundatâ; aperturâ transversâ."—Diam. 0.1.—(B.)

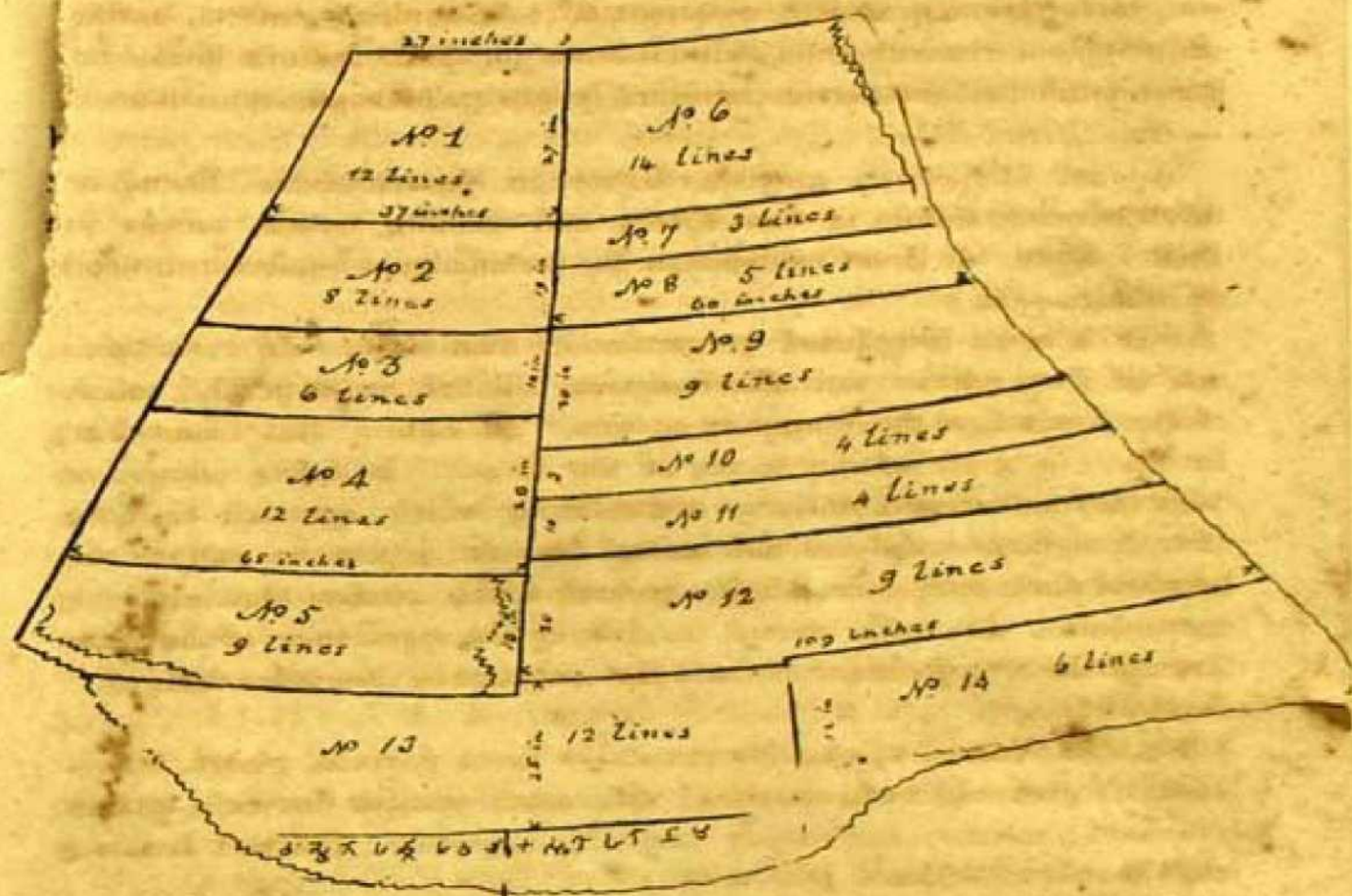
Found at *Simla* on dead leaves.—(H.)

"This shell is darker and smaller than '*H. crystallina*' of Britain, which has likewise a more flattened apex than the *Simla* species."—(B.)

[To be continued.]

[The concluding part of the catalogue will contain species belonging to the genera *Clausilia*, *Pupa*, *Bulimus*, *Carychium*, *Vertigo*, and *Cyclostoma*, together with the fluviatile shells above alluded to.]

Disposition and Dimensions of the Tablets at GIRNAR.



Second Tablet in facsimile

[illegible]

Passage in the 13th Tablet, regarding Ptolemy.

[illegible]

II.—On the Edicts of PIYADASI, or ASOKA, the Buddhist monarch of India, preserved on the Girnar rock in the Gujerat peninsula, and on the Dhauili rock in Cuttack; with the discovery of PTOLEMY's name therein. By JAMES PRINSEP, Secretary, As. Soc. &c.

[Read at the Meeting of the 4th April 1838.]

In continuation of the discovery I had the pleasure of bringing to the notice of the Society at its last meeting. I am now enabled to announce that the edicts in the ancient character from *Gujerat* do not confine their mention of Greek sovereigns to ANTIOCHUS the ally of ASOKA, but that they contain an allusion equally authentic and distinct, to one of the PTOLEMIES of *Egypt*! The edict containing this highly curious passage is in a mutilated condition and at the very end of the inscription, which will account for its having hitherto escaped my attention. As I propose to lay before the Society a brief account of the whole of the *Girnar* inscription I will do no more than mention the fact at present, reserving the particulars until I come to the actual position of the passage on the stone; for there will be found, I hope, quite enough of interest in the subject matter of the inscription throughout, to allow my hearers to accompany me through a short analysis of the whole, without urging me to pass at once to the point which must necessarily be most attractive to all who have been nurtured in the school of western classical associations.

I have already mentioned the fortunate discovery of a duplicate of the *Gujerat* inscription, at *Dhauili* in *Cuttack*.

The divided sentences, or as I shall for the present venture to call them, the edicts, which are common to *Girnar* and to *Dhauili* are eleven in number. From the first to the tenth they keep pace together: the only difference being that while at *Girnar* each is surrounded by an engraved line as a frame, at *Dhauili* the beginning of each edict is marked by a short dash as will be seen in the accompanying plate. The regular succession is then interrupted by three interpolations at *Girnar*; after which, the fourteenth edict of that series is found to correspond with the eleventh or concluding one of the same set at *Dhauili*.

The three missing edicts are more than compensated at *Dhauili* by the introduction of two others not found at *Girnar*, one at the end enclosed in a frame, and one on the left hand of the same rock on a larger scale of sculpture: but both of these being of a totally different purport and being quite unconnected with the rest, I shall postpone for separate consideration.

That the edicts are of different dates is proved by the actual mention of the year of PIYADASI'S reign in which several of them were published. Two of them are dated in the tenth* and two in the twelfth year after his *abhisèk* or consecration, which we learn from the Hon'ble Mr. TURNOUR'S Páli history did not take place until the fourth year of his succession to the throne of his father, BINDUSARO. Only one of the pillar edicts is dated in the twelfth year; the remainder, generally, bearing the date of the twenty-seventh year,—and one containing both, as if contradicting at the later epoch what had been published fifteen years before. From this evidence we must conclude that the *Gujerat* and *Cuttack* inscriptions have slightly the advantage in antiquity over the láts of *Delhi* and *Allahabad*: but again in the order of sequence we find edicts of the twelfth year preceding those of the tenth, and we learn expressly from the fourteenth edict that the whole were engraven at one time. Their preservation on rocks and pillars therefore must be regarded as resulting from an after order, when some re-arrangement was probably made according to the relative importance of the subjects.

The copy that emanated from the palace must however have been modified according to the vernacular idiom of the opposite parts of India to which it was transmitted, for there is a marked and peculiar difference both in the grammar and in the alphabet of the two texts which demands a more lengthened examination than I can afford to introduce in this place. I shall however presently recur to this subject, and at least give the explanation of those new characters which I have been obliged to cut in order to print the *Girnar* text, and which in fact render the alphabet as complete as that of the modern Páli, wanting only the two additional sibilants of the *Devanágari*, and some of the vowels. But before doing so it will be more regular to introduce the documents themselves, with such a translation as I am capable of offering. A very few words of exordium will suffice to give us a general comprehension of their purport.

Contents of the Edicts.

The *first edict* prohibits the sacrifice of animals both for food and in religious assemblies, and enjoins more attention to the practice of this first of Buddhistic virtues than seems to have been paid to it even by the rája himself, at least prior to the sixteenth year of his reign.

* I use these terms as more consonant to our idiom, the correct translation is "having been consecrated ten and twelve years," so that the actual period is one year latter in our mode of reckoning.

The *second edict* as we have already seen provides a system of medical aid for men and animals throughout PIYADASI'S dominions, and orders trees to be planted and wells to be dug along the sides of the principal public roads.

The *third edict* enjoins a quinquennial humiliation,—or if we read the word, by the alteration of *y* to *s*, as *anusásanam*, the republication every five years of the great moral maxims inculcated in the Buddhist creed, viz :—Honour to father and mother ; charity to kindred and neighbour and to the priesthood (whether brahmanical or buddhistical) ; humanity to animals ; to keep the body in temperance, and the tongue “from evil speaking !” And these precepts are to be preached to the flock by their pastors with arguments and example. This edict is dated after the twelfth year of PIYADASI'S inauguration.

The *fourth edict* draws a comparison between the former state of things, perhaps lawless, and uncivilized, and the state of regeneration of the country under the ordinances of the beloved king. The publication of the glad tidings seems to have been made with unexampled pomp and circumstance, and posterity is invoked to uphold the system. This edict is also dated in the twelfth year of PIYADASI.

The *fifth edict* after an exordium not very intelligible, proceeds to record the appointment of ministers of religion, or more strictly missionaries ; and enumerates many of the countries to which they are to be deputed for the conversion of the young and the old, the rich and the poor, the native and the foreigner. Many highly curious points especially as to geography call for notice in this edict, wherein for the first time the name of the celebrated city of *Pataliputa* is made known to us in the ancient character.

The *sixth edict* appoints in like manner *pativédakas*, informers, or perhaps more properly custodes morum, who are to take cognizance of the conduct of the people in their meals, their domestic life, their families, their conversation, their general deportment and their decease. It also nominates magistrates or officers for punishment, if the word *atiyáyika* (S. अत्यायक) may be so understood—so that in this edict we have a glimpse of the excellent system of moral administration for which the Greek and Persian historians give credit to our monarch, and we find it actually not very different from that followed twenty centuries later by ourselves ; for we too have our judges, and our magistrates ; and further our missionaries are spread abroad among the people ‘to drown them with the overflowing truths of our *dharma*, to release them from the fetters of sin and bring them unto the salvation which *passeth understanding !*’



The *seventh edict* expresses, not an order, but an earnest desire of the part of the king that all the diversities of religious opinion may be obliterated; that every distinction in rank and in tastes may be harmonized into one system of *bhāvasudhi*, that peace of mind, or repose of conscience which proceeds from knowledge, from faith and entire assent.

The *eighth edict* contrasts the mere carnal amusements patronized by former rājas, with the more harmless and pious enjoyment prescribed by himself. The *dhammayātā*, or in Sanskrit *dharmayātrā*, the festival of religion, is thus set in opposition to the *vihārayātrā*, festival of amusement; and it is stated to consist in the visits to holy people, in alms-giving, in respect to elders, and similar praise-worthy sources of rational gratification. This edict is dated in (or rather after) the tenth year of PIYADASI'S reign.

The *ninth edict* continues the thread of the same discourse by expatiating on the sources of true happiness, not such as the worldling seeks in marriage, in rearing children, in foreign travel and such things; but the *dharma mangalam*, the happiness of virtue, which displays itself in benevolence to dependants, reverence to one's pastors; in peace with all men; abundant charity and so forth; through which alone can the blessings of heaven be propitiated.

The *tenth paragraph* comments upon *Yaso vā kiti vā*, 'the glory or renown' which attend merely the vain and transitory deeds of this world. The rāja is actuated by higher motives, and he looks beyond for the reward for which he strives with heroism (*parākramena*) the most zealous yet respectful.

The *eleventh edict* is not to be found at *Dhauli*, but it is well preserved at *Girnar* and the meaning is clear throughout. As former paragraphs had vaunted the superiority of every act connected with *dharma*, so this upholds that the imparting of *dharma* itself is the chiefest of charitable donations, and then it points out as usual how the possession of this treasure becomes manifest in good works rewarded with temporary blessings in this world and endless moral merit (or the reward of it) in the next.

The *twelfth edict* is likewise wanting in the *Cuttack* series. It is addressed to all unbelievers whether domestic or ascetic, with entreaty and with more solid and more persuasive bounty, though with direct disavowal that fame is the object. There is some little obscurity in the passages which follow regarding the mode of dealing with the two great divisions of the unbelievers who are distinguished as *āptapāsanda* (those fit for conversion or actually converted), and *parapāsanda* ultra-heretics, or those upon whom no impression had been made; but the

ncluding paragraph informs us of the appointment of three grades of ministers, *dharmamahāmātrās*, *stairyya mahāmātrās*, and subordinates, in the congregational ceremonies, *karmikās*, thus placing the religion upon a firmer basis, promoting conversion to it and enhancing its attractiveness among the people.

The *fourteenth edict* is one of the most interesting of the whole series. It is a kind of summing up of the foregoing, which we have seen are partly laconic and partly diffuse, but the whole is said to be complete in itself:—and ‘if more were written it would be repetition.’ We learn from this edict that the whole was engraven at one time from an authentic copy issued doubtless under the royal mandate, by a scribe and *pandit* of a name not very easily deciphered. It is somewhat curious to find the same words precisely on the rock in *Cuttack*. The name of the writer is there erased, but the final letters of *lipikāra*, ‘scribe,’ are quite distinct.

This may be properly regarded as the last of the particular series of edicts to which it alludes. It terminates the left hand inscription at *Girnar*, and at *Dhauḷī* it is followed only by a separate edict enclosed with a line, which, as already stated and as will be seen hereafter, is of local import.

There is another paragraph at *Girnar* placed at the bottom of the left hand, which I have numbered as the *thirteenth* because it seems naturally to follow the paragraph about conversions; and like the two foregoing it is omitted at *Dhauḷī*. From the mutilated state of the rock in this place it is difficult to put together the context of the entire paragraph; but insulated phrases are intelligible enough, and are much in the same strain as the main inscription, repeating the usual maxim of duty to parents, humanity to animals and liberality to priests. It winds up with a curious passage about victory, which as far as I can make it out, describes the victory of victories to be that which overcometh the passions and happiness itself,—which conquereth things of this world and things of the world beyond, *ihalokikā cha pāralokikā cha*, and is the true object of desire.

A line here closes the paragraph, and below it in a larger character is a remarkable expression which I read as follows:—

ॐ स्वतो हस्ति पवलोका सुखहारो नामा

Va sweto hasti pavā loka sukhāhāro nāma.

By altering *pavā loka* to *savaloka* (S. सर्वलोक) ‘the whole world’ this sentence may be construed: “And the white elephant conferring pleasure upon all the world (is its) name.” But without re-

“Both here and in foreign countries, every where (the people) follows the doctrine of the religion of DEVÁNAMPĪYA wheresoever it reacheth.”

be The sight of my former friend the *yona rāja*, (whom, if he should not turn out to be ANTIOCHUS the ally, I shall shortly find another same for,) drew my particular attention to what followed; and it was impossible, with this help, not to recognize the name of PTOLEMY even in the disguise of TURAMAYO. The *r* is however doubtful; and I think on second examination it may turn out an *l*, which will make the orthography of the name complete. The word *rājāno* and its adjective *chaptāro* being both in the plural, made it necessary that other names should follow, which was confirmed by the recurrence of the conjunction *cha*. The next name was evidently imperfect, the syllabic letter read as *gon*. if turned on one side would be rather *an*, and the next too short for a *g*, might, by restoring the lost part above, be made into *tī**:

I therefore inclined to read this name $\text{H} \cdot \text{A} \cdot \text{F} \cdot \text{I}$ *Antikono* for *Antigonus* and, assuming that *chaptāro* was a corruption of *chatwāro* ‘four,’ to understand the passage as alluding to a treaty with the four principal divisions of the Alexandrine monarchy, two of which in the time of ANTIOCHUS the Great were governed by princes of these names, viz.: ANTIGONUS (in *Macedonia*) and PTOLEMY *Evergetes* in Egypt. The fourth name however thus remained inexplicable; while on the stone it was even more clear than the others, *Magá*.

Now in the time of PTOLEMY PHILADELPHUS, (B. C. 260) his half brother MAGAS who had married APAME the daughter of ANTIOCHUS I. had established his authority in *Cyrene* and was acknowledged as reigning monarch over a considerable portion of Lybia. A grandson of his, it is true, of the same name and brother of PTOLEMY IV. was contemporary with ANTIOCHUS the Great, but we do not read that he held any independent authority in the country. It seems therefore more rational to refer the allusion in our edict to the former period, and so far to modify the theory I have lately adopted on *prima facie* evidence of the treaty of ASOKA with ANTIOCHUS the Great, as to transfer it to the original treaty with one of his predecessors, the first or second of the same name, *Soter* or *Theos*, of whom the former may have the preference from his close family connection with both PTOLEMY and MAGAS, which would readily give him the power of promising free communication between India and Egypt. I say nothing on the intermediate name, *Gongakena* or *Antigonus*, because I cannot be

* See the lithographed copy of the cloth facsimile, Plate XI.

certain of its correct spelling. ANTIGONUS GONATUS had much to do with the affairs of Egypt, but he could not be well set down among its kings.

Whether *chaptáro* (or singular *chaptá*) can be allowed to pass as the Indian appellation of Egypt may be questioned; but I am at a loss how otherwise to understand an expression not translatable as Páli or Sanskrit. The first syllable, *cha*, may be read as a conjunction with *tena* but it will be, there, redundant; and *Ptáro* will be more unmanageable as a plural nominative. According to WILFORD the Sanskrit name of Ægypt is *Aguptá* or *Guptá*, whence would be formed an adjectival plural nominative *Guptáro*, but I am not aware that the *g* was in ancient times softened as in modern pronunciation so as to allow of its being written by an Indian, guided by the sound alone, with a palatal in lieu of a guttural consonant.

Be that as it may, we have proof in the names of PTOLEMY and MAGAS, that the country of Egypt is intended; and we can easily believe that its enlightened sovereign would afford every encouragement to the resort of Indians thither, for the sake of promoting that commerce with India which was so fertile a source of enrichment: and indeed history tells us that PTOLEMY PHILADELPHUS deputed a learned man named DIONYSIUS to India to examine the principal marts on the western coast, and in the interior. But a desire of studying the celebrated philosophical systems of the *brachmani* and *sramani*, already well known to him by name, may as well have been the true cause; for such a degree of curiosity may be naturally acceded to the king, who is said to have employed seventy Jewish doctors in translating the Hebrew scriptures into Greek, and to have collected a library of some hundred thousand volumes.

Much of the Indian knowledge possessed by Alexandrine authors of later days may have been derived from ASOKA's missionaries settled in their country, and CLEMENS ALEXANDRINUS and JEROME the fathers may thence have been able to draw the faithful picture their works are said to contain of the tenets of the *Sramani* or *Semni*.

As far as the doctrines of the Buddhist faith are portrayed in the simple edicts of the royal Indian convert, they were admirably adapted to win acceptance among the educated and reflecting students of the schools of Greece and Egypt. Reverence to parents, love to neighbour, charity to the poor, and humanity to animal beings were set forth as the sure and sufficient methods of gaining happiness in this world and of propitiating heaven. The acceptance of these virtuous maxims was not thwarted by any mysterious dogmas, any harsh or



volting condemnation of other systems. Even the insulated Jew would see nothing in them at variance with his own Mosaic commandments, and the title of the Indian religion every where resounded was so familiar to himself,—*dharma* ‘the law.’ It would be an agreeable task to follow up the train of investigation which here opens itself to the imagination:—to estimate and to trace the effect of the introduction of the Samanean principles on the prevailing opinions of the day in *Antioch*, and in *Alexandria*, as well as in *Persia* and *Bactria*, where the efforts to amalgamate the buddhist with the mithraic worship are matter of history;—but this is too vast a field of speculation for me to enter, and many may deem our ground as yet too slight and unstable to be made the foundation of any new views.

The intercourse thus proved to have been maintained at this early date between India, that is buddhist India, and the western nations, may help us to explain another circumstance which has lately been forcibly brought to our attention by Mr. L. WILKINSON, namely, the close agreement between the Buddhist system of astronomy and the Ptolemaic. In opposing the absurd system of the brahmanical purānas they had the advantage of all the knowledge derived from Syria and Egypt; and we thus have a clue to the compilation of the *Siddhantas*, which may be of the utmost importance in reviewing what has been written on Hindu astronomy by COLEBROOKE and BENTLEY.

- Another prolific source of speculation, now that we know of the close connection between the Indians and the Greeks at the age in which the *Bhilsa* and similar monuments were erected, will be to determine what of history can be extracted from the decidedly Greek scenes depicted in the exquisite sculpture of some of these remains.

But all this I throw out merely to enable others to place a proper value upon the evidence which a mere *hint*, a mere single word, in a stone record of indubitable antiquity, brings to the elucidation of so many disputed questions: not that I have leisure or ability to make the application myself. What the learned world demands of us in India, is to be quite certain of our data, to place the monumental record before them exactly as it now exists, and to interpret it faithfully and literally, as the document says itself, ‘without exaggeration and without extenuation.’

Anxious then to possess a copy of the text as perfect as it is possible to be made by the facsimile process, I have thought it my duty to interest the public authorities in effecting this desirable object. I confidently anticipate that the nobleman at the head of our government, and the patron of our Society will accede to my suggestion that Lieut. POSTANS, a zealous young officer now in *Cutch*, should be deputed

[illegible]



ሐላ ደ·ሄዕ ለ·ዕ ዘ፲፩ ዕረዳላ· ደላቸጌ ንዕ፲· ሆፒ ሆጌኑ
 ገደ- ጌህ ዕ ቸላ ዕ ፡ ቀላ ጌሊ ቸታ ህገተሄላ ንዕ፲· ሆ
 ኑህ ገደ ለሐዕ· ሆ፲ ላቸጌ ቸ·ላ ሐተጋ ዘህህገሐዕ ዘ
 ደሐ ህገሐዕ ጌ ዘህ·ኮ·

ኑተ፲·፲፯፻ ደላ· ዕ ኑቸ፲ ዕ ደ፲፲ ሊ·ሐ-ር፲ ዕ ዘከለ
 ዘላ፲ ህገተሄ፲ ሐዕህገ ዳ ደ፲ ደላላ ገ ሊሐ-ር፲ ኑተ፲·

Eleventh Tablet.

ንዕ፲· ሆፒ ሆጌኑ ገደ ደዕ· ዘህ ፲፯ ደላቸሐ· ያ፲·
 ጌቸሐ· ደ·ሄ ያ፲· ደ·ሄሐ·ሒ፩ ዕ ደ·ሄሐ·ዕኸ፻ ዕ ደ·ሄሐ·ዐ·ዕ
 ዕ ላላ ፡ ኑ· ዘዕላ ያሐዘላተሄ ሐሄህላህላ ሄላ፲ ሄላ፲ ሄላ፲ ሆላ፲
 ሐዕ ሐሐሐ ሄ ላሐሐላ ከላቸ፲· ዘሄ፲ ሐሄ፲፻፲· ሐዕ ያ፲·
 ሆ፲፻፲· ዘ፲፻፲· ሐዕ ደላዕላህ· ሆላ ዕ ህላ፲ ዕ ዘላ ዕ
 ሄ ላሐሐላ ፡ ዘላቸ፲ ዕ ህዕህር፲፻፲፻፲፻ ፡ ኑ· ሐዕ ፡ ኑ
 ተላህ· ሐላዕተ፲ ፡ ንተዕሐ ዘገደ ህላ ህ፲፻ ዕ ዘ፲·
 ላ·ህ·ኮ· ዘዕላ ላ፲ ደ·ሄ ያ፲፲

Twelfth Tablet.

ንዕ፲· ሆፒ ሆጌኑ ገደ- ሐዕ ሆሐ·ቸ፲፻ ህዕደላ፲፻
 ሆላ፲፻፲፻ ህዕ፲፻ ያ፲፲፻ ዕዕዕ፲፻ ህዕ፲፻ ህዕ፲፻፲፻
 ፲፻ ላዕ- ያ፲· ዕ ህዕ ዕ ንዕ፲· ሆፒ ሄ·ከላ ላዕ- ቸላ ሐ፲
 ዕ፩ ዘሐ ሐዕ ሆሐ·ቸ፲· ሐ፲ ዕ፩ላ ዐህዕዕ ላተላሐላ
 ፡ ኑ· ሄ፲ ሐዕደላ፲ ቸ·ላ ዘህህሐ·ቸ ህዕ- ዕ ህገ ሆሐ·ቸ ላ፲
 ሆዕ፲ ዘዕ ዘህተ፲፻፲፻ ጋህቸዕ ዘሐ ላሄላሄ ህተ፲፻
 ህዕላ ሐላ ደዕህ፲ ሆሐ·ቸሐ ደህ ዘህተ፲፻ ሐህቸሐ ዘህ
 ሆሐ·ቸ ህዕ፲፻ ህ፲ ሆሐ·ቸ ዕ ላ፲፻፲፻ ሐዕ ዘህህሐ·ቸ
 ዘላ፲ ቸ·ላ ዘህህሐ·ቸ ያህ፲፻ ፡ ላ፲ ሐ፲ ህ፲ ላዕተ፲



. 𑀘𑀓𑀭𑀮𑀯𑀰𑀱𑀲𑀳𑀴𑀵𑀶𑀷𑀸𑀹𑀺𑀻𑀼𑀽𑀾𑀿𑁀𑁁𑁂𑁃𑁄𑁅𑁆𑁇𑁈𑁉𑁊𑁋𑁌𑁍𑁎𑁏𑁐𑁑𑁒𑁓𑁔𑁕𑁖𑁗𑁘𑁙𑁚𑁛𑁜𑁝𑁞𑁟𑁠𑁡𑁢𑁣𑁤𑁥𑁦𑁧𑁨𑁩𑁪𑁫𑁬𑁭𑁮𑁯𑁰𑁱𑁲𑁳𑁴𑁵𑁶𑁷𑁸𑁹𑁺𑁻𑁼𑁽𑁾𑁿𑂀𑂁𑂂𑂃𑂄𑂅𑂆𑂇𑂈𑂉𑂊𑂋𑂌𑂍𑂎𑂏𑂐𑂑𑂒𑂓𑂔𑂕𑂖𑂗𑂘𑂙𑂚𑂛𑂜𑂝𑂞𑂟𑂠𑂡𑂢𑂣𑂤𑂥𑂦𑂧𑂨𑂩𑂪𑂫𑂬𑂭𑂮𑂯𑂰𑂱𑂲𑂳𑂴𑂵𑂶𑂷𑂸𑂺𑂹𑂻𑂼𑂽𑂾𑂿𑃀𑃁𑃂𑃃𑃄𑃅𑃆𑃇𑃈𑃉𑃊𑃋𑃌𑃍𑃎𑃏𑃐𑃑𑃒𑃓𑃔𑃕𑃖𑃗𑃘𑃙𑃚𑃛𑃜𑃝𑃞𑃟𑃠𑃡𑃢𑃣𑃤𑃥𑃦𑃧𑃨𑃩𑃪𑃫𑃬𑃭𑃮𑃯𑃰𑃱𑃲𑃳𑃴𑃵𑃶𑃷𑃸𑃹𑃺𑃻𑃼𑃽𑃾𑃿𑄀𑄁𑄂𑄃𑄄𑄅𑄆𑄇𑄈𑄉𑄊𑄋𑄌𑄍𑄎𑄏𑄐𑄑𑄒𑄓𑄔𑄕𑄖𑄗𑄘𑄙𑄚𑄛𑄜𑄝𑄞𑄟𑄠𑄡𑄢𑄣𑄤𑄥𑄦𑄧𑄨𑄩𑄪𑄫𑄬𑄭𑄮𑄯𑄰𑄱𑄲𑄳𑄴𑄵𑄶𑄷𑄸𑄹𑄺𑄻𑄼𑄽𑄾𑄿𑅀𑅁𑅂𑅃𑅄𑅅𑅆𑅇𑅈𑅉𑅊𑅋𑅌𑅍𑅎𑅏𑅐𑅑𑅒𑅓𑅔𑅕𑅖𑅗𑅘𑅙𑅚𑅛𑅜𑅝𑅞𑅟𑅠𑅡𑅢𑅣𑅤𑅥𑅦𑅧𑅨𑅩𑅪𑅫𑅬𑅭𑅮𑅯𑅰𑅱𑅲𑅳𑅴𑅵𑅶𑅷𑅸𑅹𑅺𑅻𑅼𑅽𑅾𑅿𑆀𑆁𑆂𑆃𑆄𑆅𑆆𑆇𑆈𑆉𑆊𑆋𑆌𑆍𑆎𑆏𑆐𑆑𑆒𑆓𑆔𑆕𑆖𑆗𑆘𑆙𑆚𑆛𑆜𑆝𑆞𑆟𑆠𑆡𑆢𑆣𑆤𑆥𑆦𑆧𑆨𑆩𑆪𑆫𑆬𑆭𑆮𑆯𑆰𑆱𑆲𑆳𑆴𑆵𑆶𑆷𑆸𑆹𑆺𑆻𑆼𑆽𑆾𑆿𑇀𑇁𑇂𑇃𑇄𑇅𑇆𑇇𑇈𑇉𑇊𑇋𑇌𑇍𑇎𑇏𑇐𑇑𑇒𑇓𑇔𑇕𑇖𑇗𑇘𑇙𑇚𑇛𑇜𑇝𑇞𑇟𑇠𑇡𑇢𑇣𑇤𑇥𑇦𑇧𑇨𑇩𑇪𑇫𑇬𑇭𑇮𑇯𑇰𑇱𑇲𑇳𑇴𑇵𑇶𑇷𑇸𑇹𑇺𑇻𑇼𑇽𑇾𑇿𑈀𑈁𑈂𑈃𑈄𑈅𑈆𑈇𑈈𑈉𑈊𑈋𑈌𑈍𑈎𑈏𑈐𑈑𑈒𑈓𑈔𑈕𑈖𑈗𑈘𑈙𑈚𑈛𑈜𑈝𑈞𑈟𑈠𑈡𑈢𑈣𑈤𑈥𑈦𑈧𑈨𑈩𑈪𑈫𑈬𑈭𑈮𑈯𑈰𑈱𑈲𑈳𑈴𑈶𑈵𑈷𑈸𑈹𑈺𑈻𑈼𑈽𑈾𑈿𑉀𑉁𑉂𑉃𑉄𑉅𑉆𑉇𑉈𑉉𑉊𑉋𑉌𑉍𑉎𑉏𑉐𑉑𑉒𑉓𑉔𑉕𑉖𑉗𑉘𑉙𑉚𑉛𑉜𑉝𑉞𑉟𑉠𑉡𑉢𑉣𑉤𑉥𑉦𑉧𑉨𑉩𑉪𑉫𑉬𑉭𑉮𑉯𑉰𑉱𑉲𑉳𑉴𑉵𑉶𑉷𑉸𑉹𑉺𑉻𑉼𑉽𑉾𑉿𑊀𑊁𑊂𑊃𑊄𑊅𑊆𑊇𑊈𑊉𑊊𑊋𑊌𑊍𑊎𑊏𑊐𑊑𑊒𑊓𑊔𑊕𑊖𑊗𑊘𑊙𑊚𑊛𑊜𑊝𑊞𑊟𑊠𑊡𑊢𑊣𑊤𑊥𑊦𑊧𑊨𑊩𑊪𑊫𑊬𑊭𑊮𑊯𑊰𑊱𑊲𑊳𑊴𑊵𑊶𑊷𑊸𑊹𑊺𑊻𑊼𑊽𑊾𑊿𑋀𑋁𑋂𑋃𑋄𑋅𑋆𑋇𑋈𑋉𑋊𑋋𑋌𑋍𑋎𑋏𑋐𑋑𑋒𑋓𑋔𑋕𑋖𑋗𑋘𑋙𑋚𑋛𑋜𑋝𑋞𑋟𑋠𑋡𑋢𑋣𑋤𑋥𑋦𑋧𑋨𑋩𑋪𑋫𑋬𑋭𑋮𑋯𑋰𑋱𑋲𑋳𑋴𑋵𑋶𑋷𑋸𑋹𑋺𑋻𑋼𑋽𑋾𑋿𑌀𑌁𑌂𑌃𑌄𑌅𑌆𑌇𑌈𑌉𑌊𑌋𑌌𑌍𑌎𑌏𑌐𑌑𑌒𑌓𑌔𑌕𑌖𑌗𑌘𑌙𑌚𑌛𑌜𑌝𑌞𑌟𑌠𑌡𑌢𑌣𑌤𑌥𑌦𑌧𑌨𑌩𑌪𑌫𑌬𑌭𑌮𑌯𑌰𑌱𑌲𑌳𑌴𑌵𑌶𑌷𑌸𑌹𑌺𑌻𑌼𑌽𑌾𑌿𑍀𑍁𑍂𑍃𑍄𑍅𑍆𑍇𑍈𑍉𑍊𑍋𑍌𑍍𑍎𑍏𑍐𑍑𑍒𑍓𑍔𑍕𑍖𑍗𑍘𑍙𑍚𑍛𑍜𑍝𑍞𑍟𑍠𑍡𑍢𑍣𑍤𑍥𑍦𑍧𑍨𑍩𑍪𑍫𑍬𑍭𑍮𑍯𑍰𑍱𑍲𑍳𑍴𑍵𑍶𑍷𑍸𑍹𑍺𑍻𑍼𑍽𑍾𑍿𑎀𑎁𑎂𑎃𑎄𑎅𑎆𑎇𑎈𑎉𑎊𑎋𑎌𑎍𑎎𑎏𑎐𑎑𑎒𑎓𑎔𑎕𑎖𑎗𑎘𑎙𑎚𑎛𑎜𑎝𑎞𑎟𑎠𑎡𑎢𑎣𑎤𑎥𑎦𑎧𑎨𑎩𑎪𑎫𑎬𑎭𑎮𑎯𑎰𑎱𑎲𑎳𑎴𑎵𑎶𑎷𑎸𑎹𑎺𑎻𑎼𑎽𑎾𑎿𑏀𑏁𑏂𑏃𑏄𑏅𑏆𑏇𑏈𑏉𑏊𑏋𑏌𑏍𑏎𑏏𑏐𑏑𑏒𑏓𑏔𑏕𑏖𑏗𑏘𑏙𑏚𑏛𑏜𑏝𑏞𑏟𑏠𑏡𑏢𑏣𑏤𑏥𑏦𑏧𑏨𑏩𑏪𑏫𑏬𑏭𑏮𑏯𑏰𑏱𑏲𑏳𑏴𑏵𑏶𑏷𑏸𑏹𑏺𑏻𑏼𑏽𑏾𑏿𑐀𑐁𑐂𑐃𑐄𑐅𑐆𑐇𑐈𑐉𑐊𑐋𑐌𑐍𑐎𑐏𑐐𑐑𑐒𑐓𑐔𑐕𑐖𑐗𑐘𑐙𑐚𑐛𑐜𑐝𑐞𑐟𑐠𑐡𑐢𑐣𑐤𑐥𑐦𑐧𑐨𑐩𑐪𑐫𑐬𑐭𑐮𑐯𑐰𑐱𑐲𑐳𑐴𑐵𑐶𑐷𑐸𑐹𑐺𑐻𑐼𑐽𑐾𑐿𑑀𑑁𑑂𑑃𑑄𑑅𑑆𑑇𑑈𑑉𑑊𑑋𑑌𑑍𑑎𑑏𑑐𑑑𑑒𑑓𑑔𑑕𑑖𑑗𑑘𑑙𑑚𑑛𑑜𑑝𑑞𑑟𑑠𑑡𑑢𑑣𑑤𑑥𑑦𑑧𑑨𑑩𑑪𑑫𑑬𑑭𑑮𑑯𑑰𑑱𑑲𑑳𑑴𑑵𑑶𑑷𑑸𑑹𑑺𑑻𑑼𑑽𑑾𑑿𑒀𑒁𑒂𑒃𑒄𑒅𑒆𑒇𑒈𑒉𑒊𑒋𑒌𑒍𑒎𑒏𑒐𑒑𑒒𑒓𑒔𑒕𑒖𑒗𑒘𑒙𑒚𑒛𑒜𑒝𑒞𑒟𑒠𑒡𑒢𑒣𑒤𑒥𑒦𑒧𑒨𑒩𑒪𑒫𑒬𑒭𑒮𑒯𑒰𑒱𑒲𑒳𑒴𑒵𑒶𑒷𑒸𑒻𑒻𑒼𑒽𑒾𑒿𑓀𑓁𑓃𑓂𑓄𑓅𑓆𑓇𑓈𑓉𑓊𑓋𑓌𑓍𑓎𑓏𑓐𑓑𑓒𑓓𑓔𑓕𑓖𑓗𑓘𑓙𑓚𑓛𑓜𑓝𑓞𑓟𑓠𑓡𑓢𑓣𑓤𑓥𑓦𑓧𑓨𑓩𑓪𑓫𑓬𑓭𑓮𑓯𑓰𑓱𑓲𑓳𑓴𑓵𑓶𑓷𑓸𑓹𑓺𑓻𑓼𑓽𑓾𑓿𑔀𑔁𑔂𑔃𑔄𑔅𑔆𑔇𑔈𑔉𑔊𑔋𑔌𑔍𑔎𑔏𑔐𑔑𑔒𑔓𑔔𑔕𑔖𑔗𑔘𑔙𑔚𑔛𑔜𑔝𑔞𑔟𑔠𑔡𑔢𑔣𑔤𑔥𑔦𑔧𑔨𑔩𑔪𑔫𑔬𑔭𑔮𑔯𑔰𑔱𑔲𑔳𑔴𑔵𑔶𑔷𑔸𑔹𑔺𑔻𑔼𑔽𑔾𑔿𑕀𑕁𑕂𑕃𑕄𑕅𑕆𑕇𑕈𑕉𑕊𑕋𑕌𑕍𑕎𑕏𑕐𑕑𑕒𑕓𑕔𑕕𑕖𑕗𑕘𑕙𑕚𑕛𑕜𑕝𑕞𑕟𑕠𑕡𑕢𑕣𑕤𑕥𑕦𑕧𑕨𑕩𑕪𑕫𑕬𑕭𑕮𑕯𑕰𑕱𑕲𑕳𑕴𑕵𑕶𑕷𑕸𑕹𑕺𑕻𑕼𑕽𑕾𑕿𑖀𑖁𑖂𑖃𑖄𑖅𑖆𑖇𑖈𑖉𑖊𑖋𑖌𑖍𑖎𑖏𑖐𑖑𑖒𑖓𑖔𑖕𑖖𑖗𑖘𑖙𑖚𑖛𑖜𑖝𑖞𑖟𑖠𑖡𑖢𑖣𑖤𑖥𑖦𑖧𑖨𑖩𑖪𑖫𑖬𑖭𑖮𑖯𑖰𑖱𑖲𑖳𑖴𑖵𑖶𑖷𑖸𑖹𑖺𑖻𑖼𑖽𑖾𑗀𑖿𑗁𑗂𑗃𑗄𑗅𑗆𑗇𑗈𑗉𑗊𑗋𑗌𑗍𑗎𑗏𑗐𑗑𑗒𑗓𑗔𑗕𑗖𑗗𑗘𑗙𑗚𑗛𑗜𑗝𑗞𑗟𑗠𑗡𑗢𑗣𑗤𑗥𑗦𑗧𑗨𑗩𑗪𑗫𑗬𑗭𑗮𑗯𑗰𑗱𑗲𑗳𑗴𑗵𑗶𑗷𑗸𑗹𑗺𑗻𑗼𑗽𑗾𑗿𑘀𑘁𑘂𑘃𑘄𑘅𑘆𑘇𑘈𑘉𑘊𑘋𑘌𑘍𑘎𑘏𑘐𑘑𑘒𑘓𑘔𑘕𑘖𑘗𑘘𑘙𑘚𑘛𑘜𑘝𑘞𑘟𑘠𑘡𑘢𑘣𑘤𑘥𑘦𑘧𑘨𑘩𑘪𑘫𑘬𑘭𑘮𑘯𑘰𑘱𑘲𑘳𑘴𑘵𑘶𑘷𑘸𑘹𑘺𑘻𑘼𑘽𑘾𑘿𑙀𑙁𑙂𑙃𑙄𑙅𑙆𑙇𑙈𑙉𑙊𑙋𑙌𑙍𑙎𑙏𑙐𑙑𑙒𑙓𑙔𑙕𑙖𑙗𑙘𑙙𑙚𑙛𑙜𑙝𑙞𑙟𑙠𑙡𑙢𑙣𑙤𑙥𑙦𑙧𑙨𑙩𑙪𑙫𑙬𑙭𑙮𑙯𑙰𑙱𑙲𑙳𑙴𑙵𑙶𑙷𑙸𑙹𑙺𑙻𑙼𑙽𑙾𑙿𑚀𑚁𑚂𑚃𑚄𑚅𑚆𑚇𑚈𑚉𑚊𑚋𑚌𑚍𑚎𑚏𑚐𑚑𑚒𑚓𑚔𑚕𑚖𑚗𑚘𑚙𑚚𑚛𑚜𑚝𑚞𑚟𑚠𑚡𑚢𑚣𑚤𑚥𑚦𑚧𑚨𑚩𑚪𑚫𑚬𑚭𑚮𑚯𑚰𑚱𑚲𑚳𑚴𑚵𑚷𑚶𑚸𑚹𑚺𑚻𑚼𑚽𑚾𑚿𑛀𑛁𑛂𑛃𑛄𑛅𑛆𑛇𑛈𑛉𑛊𑛋𑛌𑛍𑛎𑛏𑛐𑛑𑛒𑛓𑛔𑛕𑛖𑛗𑛘𑛙𑛚𑛛𑛜𑛝𑛞𑛟𑛠𑛡𑛢𑛣𑛤𑛥𑛦𑛧𑛨𑛩𑛪𑛫𑛬𑛭𑛮𑛯𑛰𑛱𑛲𑛳𑛴𑛵𑛶𑛷𑛸𑛹𑛺𑛻𑛼𑛽𑛾𑛿𑜀𑜁𑜂𑜃𑜄𑜅𑜆𑜇𑜈𑜉𑜊𑜋𑜌𑜍𑜎𑜏𑜐𑜑𑜒𑜓𑜔𑜕𑜖𑜗𑜘𑜙𑜚𑜛𑜜𑜝𑜞𑜟𑜠𑜡𑜢𑜣𑜤𑜥𑜦𑜧𑜨𑜩𑜪𑜫𑜬𑜭𑜮𑜯𑜰𑜱𑜲𑜳𑜴𑜵𑜶𑜷𑜸𑜹𑜺𑜻𑜼𑜽𑜾𑜿𑝀𑝁𑝂𑝃𑝄𑝅𑝆𑝇𑝈𑝉𑝊𑝋𑝌𑝍𑝎𑝏𑝐𑝑𑝒𑝓𑝔𑝕𑝖𑝗𑝘𑝙𑝚𑝛𑝜𑝝𑝞𑝟𑝠𑝡𑝢𑝣𑝤𑝥𑝦𑝧𑝨𑝩𑝪𑝫𑝬𑝭𑝮𑝯𑝰𑝱𑝲𑝳𑝴𑝵𑝶𑝷𑝸𑝹𑝺𑝻𑝼𑝽𑝾𑝿𑞀𑞁𑞂𑞃𑞄𑞅𑞆𑞇𑞈𑞉𑞊𑞋𑞌𑞍𑞎𑞏𑞐𑞑𑞒𑞓𑞔𑞕𑞖𑞗𑞘𑞙𑞚𑞛𑞜𑞝𑞞𑞟𑞠𑞡𑞢𑞣𑞤𑞥𑞦𑞧𑞨𑞩𑞪𑞫𑞬𑞭𑞮𑞯𑞰𑞱𑞲𑞳𑞴𑞵𑞶𑞷𑞸𑞹𑞺𑞻𑞼𑞽𑞾𑞿𑟀𑟁𑟂𑟃𑟄𑟅𑟆𑟇𑟈𑟉𑟊𑟋𑟌𑟍𑟎𑟏𑟐𑟑𑟒𑟓𑟔𑟕𑟖𑟗𑟘𑟙𑟚𑟛𑟜𑟝𑟞𑟟𑟠𑟡𑟢𑟣𑟤𑟥𑟦𑟧𑟨𑟩𑟪𑟫𑟬𑟭𑟮𑟯𑟰𑟱𑟲𑟳𑟴𑟵𑟶𑟷𑟸𑟹𑟺𑟻𑟼𑟽𑟾𑟿𑠀𑠁𑠂𑠃𑠄𑠅𑠆𑠇𑠈𑠉𑠊𑠋𑠌𑠍𑠎𑠏𑠐𑠑𑠒𑠓𑠔𑠕𑠖𑠗𑠘𑠙𑠚𑠛𑠜𑠝𑠞𑠟𑠠𑠡𑠢𑠣𑠤𑠥𑠦𑠧𑠨𑠩𑠪𑠫𑠬𑠭𑠮𑠯𑠰𑠱𑠲𑠳𑠴𑠵𑠶𑠷𑠸𑠺𑠹𑠻𑠼𑠽𑠾𑠿𑡀𑡁𑡂𑡃𑡄𑡅𑡆𑡇𑡈𑡉𑡊𑡋𑡌𑡍𑡎𑡏𑡐𑡑𑡒𑡓𑡔𑡕𑡖𑡗𑡘𑡙𑡚𑡛𑡜𑡝𑡞𑡟𑡠𑡡𑡢𑡣𑡤𑡥𑡦𑡧𑡨𑡩𑡪𑡫𑡬𑡭𑡮𑡯𑡰𑡱𑡲𑡳𑡴𑡵𑡶𑡷𑡸𑡹𑡺𑡻𑡼𑡽𑡾𑡿𑢀𑢁𑢂𑢃𑢄𑢅𑢆𑢇𑢈𑢉𑢊𑢋𑢌𑢍𑢎𑢏𑢐𑢑𑢒𑢓𑢔𑢕𑢖𑢗𑢘𑢙𑢚𑢛𑢜𑢝𑢞𑢟𑢠𑢡𑢢𑢣𑢤𑢥𑢦𑢧𑢨𑢩𑢪𑢫𑢬𑢭𑢮𑢯𑢰𑢱𑢲𑢳𑢴𑢵𑢶𑢷𑢸𑢹𑢺𑢻𑢼𑢽𑢾𑢿𑣀𑣁𑣂𑣃𑣄𑣅𑣆𑣇𑣈𑣉𑣊𑣋𑣌𑣍𑣎𑣏𑣐𑣑𑣒𑣓𑣔𑣕𑣖𑣗𑣘𑣙𑣚𑣛𑣜𑣝𑣞𑣟𑣠𑣡𑣢𑣣𑣤𑣥𑣦𑣧𑣨𑣩𑣪𑣫𑣬𑣭𑣮𑣯𑣰𑣱𑣲𑣳𑣴𑣵𑣶𑣷𑣸𑣹𑣺𑣻𑣼𑣽𑣾𑣿𑤀𑤁𑤂𑤃𑤄𑤅𑤆𑤇𑤈𑤉𑤊𑤋𑤌𑤍𑤎𑤏𑤐𑤑𑤒𑤓𑤔𑤕𑤖𑤗𑤘𑤙𑤚𑤛𑤜𑤝𑤞𑤟𑤠𑤡𑤢𑤣𑤤𑤥𑤦𑤧𑤨𑤩𑤪𑤫𑤬𑤭𑤮𑤯𑤰𑤱𑤲𑤳𑤴𑤵𑤶𑤷𑤸𑤹𑤺𑤻𑤼𑤽𑤾𑤿𑥀𑥁𑥂𑥃𑥄𑥅𑥆𑥇𑥈𑥉𑥊𑥋𑥌𑥍𑥎𑥏𑥐𑥑𑥒𑥓𑥔𑥕𑥖𑥗𑥘𑥙𑥚𑥛𑥜𑥝𑥞𑥟𑥠𑥡𑥢𑥣𑥤𑥥𑥦𑥧𑥨𑥩𑥪𑥫𑥬𑥭𑥮𑥯𑥰𑥱𑥲𑥳𑥴𑥵𑥶𑥷𑥸𑥹𑥺𑥻𑥼𑥽𑥾𑥿𑦀𑦁𑦂𑦃𑦄𑦅𑦆𑦇𑦈𑦉𑦊𑦋𑦌𑦍𑦎𑦏𑦐𑦑𑦒𑦓𑦔𑦕𑦖𑦗𑦘𑦙𑦚𑦛𑦜𑦝𑦞𑦟𑦠𑦡𑦢𑦣𑦤𑦥𑦦𑦧𑦨𑦩𑦪𑦫𑦬𑦭𑦮𑦯𑦰𑦱𑦲𑦳𑦴𑦵𑦶𑦷𑦸𑦹𑦺𑦻𑦼𑦽𑦾𑦿𑧀𑧁𑧂𑧃𑧄𑧅𑧆𑧇𑧈𑧉𑧊𑧋𑧌𑧍𑧎𑧏𑧐𑧑𑧒𑧓𑧔𑧕𑧖𑧗𑧘𑧙𑧚𑧛𑧜𑧝𑧞𑧟𑧠𑧡𑧢𑧣𑧤𑧥𑧦𑧧𑧨𑧩𑧪𑧫𑧬𑧭𑧮𑧯𑧰𑧱𑧲𑧳𑧴𑧵𑧶𑧷𑧸𑧹𑧺𑧻𑧼𑧽𑧾𑧿𑨀𑨁𑨂𑨃𑨄𑨅𑨆𑨇𑨈𑨉𑨊𑨋𑨌𑨍𑨎𑨏𑨐𑨑𑨒𑨓𑨔𑨕𑨖𑨗𑨘𑨙𑨚𑨛𑨜𑨝𑨞𑨟𑨠𑨡𑨢𑨣𑨤𑨥𑨦𑨧𑨨𑨩𑨪𑨫𑨬𑨭𑨮𑨯𑨰𑨱𑨲𑨳𑨴𑨵𑨶𑨷𑨸𑨹𑨺𑨻𑨼𑨽𑨾𑨿𑩀𑩁𑩂𑩃𑩄𑩅𑩆𑩇𑩈𑩉𑩊𑩋𑩌𑩍𑩎𑩏𑩐𑩑𑩒𑩓𑩔𑩕𑩖𑩗𑩘𑩙𑩚𑩛𑩜𑩝𑩞𑩟𑩠𑩡𑩢𑩣𑩤𑩥𑩦𑩧𑩨𑩩𑩪𑩫𑩬𑩭𑩮𑩯𑩰𑩱𑩲𑩳𑩴𑩵𑩶𑩷𑩸𑩹𑩺𑩻𑩼𑩽𑩾𑩿𑪀𑪁𑪂𑪃𑪄𑪅𑪆𑪇𑪈𑪉𑪊𑪋𑪌𑪍𑪎𑪏𑪐𑪑𑪒𑪓𑪔𑪕𑪖𑪗𑪘𑪙𑪚𑪛𑪜𑪝𑪞𑪟𑪠𑪡𑪢𑪣𑪤𑪥𑪦𑪧𑪨𑪩𑪪𑪫𑪬𑪭𑪮𑪯𑪰𑪱𑪲𑪳𑪴𑪵𑪶𑪷𑪸𑪹𑪺𑪻𑪼𑪽𑪾𑪿𑫀𑫁𑫂𑫃𑫄𑫅𑫆𑫇𑫈𑫉𑫊𑫋𑫌𑫍𑫎𑫏𑫐𑫑𑫒𑫓𑫔𑫕𑫖𑫗𑫘𑫙𑫚𑫛𑫜𑫝𑫞𑫟𑫠𑫡𑫢𑫣𑫤𑫥𑫦𑫧𑫨𑫩𑫪𑫫𑫬𑫭𑫮𑫯𑫰𑫱𑫲𑫳𑫴𑫵𑫶𑫷𑫸𑫹𑫺𑫻𑫼𑫽𑫾𑫿𑬀𑬁𑬂𑬃𑬄𑬅𑬆𑬇𑬈𑬉𑬊𑬋𑬌𑬍𑬎𑬏𑬐𑬑𑬒𑬓𑬔𑬕𑬖𑬗𑬘𑬙𑬚𑬛𑬜𑬝𑬞𑬟𑬠𑬡𑬢𑬣𑬤𑬥𑬦𑬧𑬨𑬩𑬪𑬫𑬬𑬭𑬮𑬯𑬰𑬱𑬲𑬳𑬴𑬵𑬶𑬷𑬸𑬹𑬺𑬻𑬼𑬽𑬾𑬿𑭀𑭁𑭂𑭃𑭄𑭅𑭆𑭇𑭈𑭉𑭊𑭋𑭌𑭍𑭎𑭏𑭐𑭑𑭒𑭓𑭔𑭕𑭖𑭗𑭘𑭙𑭚𑭛𑭜𑭝𑭞𑭟𑭠𑭡𑭢𑭣𑭤𑭥𑭦𑭧𑭨𑭩𑭪𑭫𑭬𑭭𑭮𑭯𑭰𑭱𑭲𑭳𑭴𑭵𑭶𑭷𑭸𑭹𑭺𑭻𑭼𑭽𑭾𑭿𑮀𑮁𑮂𑮃𑮄𑮅𑮆𑮇𑮈𑮉𑮊𑮋𑮌𑮍𑮎𑮏𑮐𑮑𑮒𑮓𑮔𑮕𑮖𑮗𑮘𑮙𑮚𑮛𑮜𑮝𑮞𑮟𑮠𑮡𑮢𑮣𑮤𑮥𑮦𑮧𑮨𑮩𑮪𑮫𑮬𑮭𑮮𑮯𑮰𑮱𑮲𑮳𑮴𑮵𑮶𑮷𑮸𑮹𑮺𑮻𑮼𑮽𑮾𑮿𑯀𑯁𑯂𑯃𑯄𑯅𑯆𑯇𑯈𑯉𑯊𑯋𑯌𑯍𑯎𑯏𑯐𑯑𑯒𑯓𑯔𑯕𑯖𑯗𑯘𑯙𑯚𑯛𑯜𑯝𑯞𑯟𑯠𑯡𑯢𑯣𑯤𑯥𑯦𑯧𑯨𑯩𑯪𑯫𑯬𑯭𑯮𑯯𑯰𑯱𑯲𑯳𑯴𑯵𑯶𑯷𑯸𑯹𑯺𑯻𑯼𑯽𑯾𑯿𑰀𑰁𑰂𑰃𑰄𑰅𑰆𑰇𑰈𑰉𑰊𑰋𑰌𑰍𑰎𑰏𑰐𑰑



imáya dhammánusanstáya, yathá apoyasákammáya: sadhu
 me hevam imáye dhammá anusayasa u
 átari cha pitari cha susúśá; mitasa suta natina bámbhaṇa samaṇánam
 átá pitá susúśá; natisu babhāna samanehi
 ádhu dánam: pápánam sádhu anárambho: apavyayatá apabhindatá
 ádhu dánam: jívīsu.. análabbhe sádhu apaviyatá apabhanditá
 ádhu: parisápi yuto añāpayisati gaṇanāyam hetuto cha vyanjaneto cha.
 ádhu: parisápi chatiyatáni ānapayi ga..... tuto cha viyan.....

Fourth Tablet.

Atikátam antaram bahúni vasasatáni vadhítá eva pápárambho, vi-
 Atikantam antalam bahúni vasasatáni vadhiteva pánalambhe, vi-
 hinsá cha bhútānam; nātisū asampatipatí; bámbhaṇa sámaṇánam
 hinsá cha bhutānam,.. nātisu asampatipatī.. samana.. vipuyesu...
 asampatipatí cha: Aja devánampiyasa Piyadasino ráño dhammacharā-
 asampatipatī:.... Se aja devánampiyasa Piyadasine rajine dhammachā-
 ganena bherīgghoso api dhammagghoso, vimāna dapaṇá cha, hassi dapa-
 janena bheliḡghosam api dhammagghosam vimāna dasanam,.. hathīni.....
 pá cha, agikhandhāni cha aññāni divyāni rūpāni dasāyi
 aga khandhāni,.. annāni cha dāviyāni rūpāni dasayitun
 pájānam yārisa bahúhi vasa satehi na bhúta pūve, tārīse aja
 munisānam ādisē bahu.. vasa satemsi no hūta puluve, tādise aja
 vadhítá: devánampiyasa Piyadasino ráño dhammánusanstiyá;
 vutī:.. devánampiyasa Piyadasine rájine dhammánusathiyá;
 anárambho pápánam, avihinsá bhutānam, nātinam sampatipatí,
 analambhe pápánam, avihinsá bhutānam, nātisu.. sampatipatí,
 bámbhaṇa samaṇánam sampatipatí; mātari pitari susúśá; thaire susúśá,
 samana.. bábhānesu.. sampatipatí; mātā pitu susúśá(gura)va susúśá;
 esa añe cha bahu vidhe dhammacharaṇa vadhita; vadhayisati cheva
 esa anne cha bahu vidhe dhammachalane.. vadhite; vadhayisati cheva
 devánampiyo Piyadasi rájá dhammacharaṇam idam, putá cha potá cha
 devánampiye Piyadasi lája dhammachalanam mam putá pi chanati
 papotá cha devánampiyasa Piyadasino raño vadhayisanti idam
 atn (....) devánampiyasa Piyadasine rajine pavadhayisanti yeva
 dhamma charaṇam á cha pavata kapá dhammamhi sílamhi
 dhamma chalanam imam; á kepam dhammasi .. sílasi..
 ti stānto .. imam anusāsīsati esahise tēkame yathá anusāsana.....
 bhavi (si) tu sāsīsanti.. esahise me yá dhammánusāsana
 dhammacharaṇe pi na bhavati asīla sava; imamhi athamhi dhi cha
 dhammachalana pi cha no hoti asīlasi; se imasa.. athasa.. va dhi
 ahīni cha sádhu. Etáya atháya idam likhapitam: imasa athasa vadhaya
 ahīni dhasáyá. Etáye athe.. iyam likhite..... imasa athasa vadhīyun

jantu : hīni... lo chetam.. rhá (?) Dwádasa vasábhīsiten
 jantu.. hīni cha má alo chayi (tun).. Duwádasa vasábhīsita
 devánampiyasa Piyadasiná rápo idam lekhápitam.
 devánampiyasa Piyadasine rajine (e) sa likhite.

Fifth Tablet.

Devánampiya Piyadasi rájá evam áha :—Kalána dakaraya a.. In
 Devánampiya Piyadasi lája hevam áhá :—Kayáne dukale.....
 kaláne pape dukara karoti : tam mayá bahu kaláná katá : ta mama
 kayáná sase dukalam kaleti : se.. me.. bahuke kayáná kaṭe : tam ye me
 putá cha potá cha pare cha tanayá me áva pavata kapá....
 pu.... va na cha tanaye apatiye me áva kapam tathá
 anuvatasare : tathá so sakatam kásati : yo tu ete desam pihápeyati
 anuvatisanti : se... .. sákaṭam kachhati : che ta desam pihápayisati,
 so dukatam kásati... .. pakarambhi pápe. Atikátam antaram na
 se dukatam káchhati pápe ha. su pudálayesu. Atikantam antalam no
 bhuta puvam, dhammamahámátá náma : meyá to dasavasábhisi (tena) :
 hūta puluvá, dhammamahámátá náma : se to dasavasábhisi tena me
 dhammamahámátá katá ; te.. sava pasand su vyapatá
 dhammamahámátá náma kaṭá : te sate sava pasandesu viyapa(tá)
 dhammamajunayá dhammasutasa
 dhammádhithánaye dhamma vaḍhiye hita sukháye cha dhammasúta..
 chayena ; Kam (bocha, gan)dhárá, naristika petenikánaye vápi añña
 sanyana, Kambocha gandhále, suláthika pitenike, su li, vápi anne
 áparátá bhatamayesu ; va (hita su) khí (ya... .. va yutánam aparágo-
 ápalanta bhaṭi bābhana bhisásu, anathesu
 mahalokesu cha hitasukhaye, dhammayutaye apalibo-
 dhaya vyápatá ; tebandhana badhaya patividhánáya já katá :
 dháya viyapaṭá ; se bandhana badhasa ya apalibo-
 dháye mokháye cha iyam anubandha pajáti (ka) tá ;
 Bhikaresu vá thairesuhi vá vyapatá ; to Paṭilipute cha báhiresu cha
 bhikalesi vá mahálakensī va viyapaṭá ; se hida cha báhilesu cha,
 nagalesu savesu olodhanesu evahi bhátanam va bhagininam
 vápi aññe nātika savata viyápatá, te yo iyam dha penṇásito
 annesu sá..ti savata tata viyapata cha,, iyam dhamma
 nisitativam dhammádhithāne, táva dānasayute va sava
 táva..... mahámátá :
 pathaviyam : dhammáyutasi viyapaṭá ime dhamma mahámátá :
 etáya atháya ayam dhamma lipi likhitá.
 imáye atháye iyam dhamma lipi likhitá ; kapá tasa cha me poja
 anuvetatu !

Sixth Tablet.

(Devanampiyō) Piyadāsi rājā evam āha. Atikātam antaram na
Devānampīye Piyadasi lāja hevam ahā. Atikantam antalam na
be uta puva, sa athakamme va paṭivedanā vā tā mayā eva
uta puluve, savakālam āthakamme va paṭivedanā tā se mama yā
s atam. Save kāle, bhunjamāna same, ūrodhanamhi, gabhāgāramhi,
ate. Sava sameante, olodhanasi, gabhatapasi
vachamhi va vinītamhi cha, uyānesu cha, savata paṭivedakā ṣṭitā
(tapasi bis ?) vinītasi. uyenasu cha, savata paṭivedakā . . .
athe me janasa paṭivedetha iti! Savata va janasa athe karomi
janasa . . aṭham paṭivedayantumati! Savata cha jā . . sa aṭham kalāmi
ya cha kinchi mukhato añapayāmi; mayā dapakam vā, ṣṭavāpakam
ha . . am pi cha makhāto anapeyāmi; me . . dapakam vā, savakam . .
vāyavā. Puna mahāthe tesu āchāyika añapita bhavati. Etāya
vā eva. mahā ma . . si atiyāyike alopite hoti. . . tasi . .
athāya vividoni kīti vasanto parisāya, anantara paṭiveda rasam
athasi vavadevani kīti vāsantam pahipāyā anantaliyam paṭivadeta, va he
me savatā save kāle evam mayā añapitam. Nasti hi me to ren (?)
meti savata savam kālam hevam me . . anusatha.
uṣṭīnamhi athasantīranā yava katavyamatehi me sama loka
(suthāna) hapi aṭhasantīland yacha kataviyamatehi me sava loka
hitam: tasa cha puna esa mūlo uṣṭānam cha athasantīranā cha, nasti
hite . . tasa cha pana iyam mule suthāna cha santīlandā cha, nathi
kammataaram savaloka hita stā, ya cha kinchi parākamāmī aham!
kammatala . . savaloka hitāya, a chati cha . . palakāmivahakam!
Kinti bhūtānam (anāṇam gachheyam) idha chanāni sukhāpayāmi;
Kinti bhūtānam a . . ni yam ye hati hida cha kāni sukhayāmi; . .
paratā cha swagam ārādhayantūti. Etāya athāya ayam dhammalipī
palatā cha swaga . . bāsādhayantuti. Etāye athāye ayam dhammalipi
likhāpitā: kinti chiran tiṣṭeya iti! Tathā cha me putā potā
likhitā: chilathitā hotu! Tathā cha potā
cha pāpotā cha anavataram sava loka hitāya dukarantthu idam añata
papotā me palakama . . sa ka hitāye dukale cha . . iyam annata
agena parākamena.
agena palākamena.

Seventh Tablet.

Devānampīya Piyadasi rājā savata ichhati save pāsandā vaseyu
Devānampīye Piyadasi lāja savata ichhati ḍanam va
save te sayaman cha bhāvasudhinchā: ichhati japasa uchāvacha
veva ti save hoga sachhaman bhāvesudhī cha: ichhati munisa ochavacha

chhando uchávacha rágo te savam vakásanti ekadesam vakásav
vando.. uchávacha lágá te savam vá ekadasam kachati
visule tu pi dāne; yasa násti sayame bhávasudhi táva katam nā
vidala pina dāne; asa nathi dhayame bhávasudhi cha
va dadhabhatitá rani, vá bādham.
..... ni che bādham.

Eighth Tablet.

Atikátam antaram rájáno vihárayátán ñeyaka etamaga
..... tam antalam lája vahalayátam náma nikhamisaga ma (ga)-
vyá añani cha etárisani abhíramakáni ahum pum: so devánam-
viyam annáni cha edisáni abhíramáni puvantinam: se devánam-
piyo Piyadasi rája dasavasábhishito santo ayáya satam cha
piye Piyadasi lája dasavasábhishite janikhami sam bopa
tenesá dhammayátá: etayam hoti,—bamhaṇa samañānam dasaṇe cha
tenatá dhammayátá: se hotiti,—samana bābhanānam dasane cha
dāne cha, thairānam dasaṇe cha,—hiraṇṇa paṭivīdhāno cha, jana-
dave cha, vaḍhānam dasane cha,—hilaṇṇa paṭivīpādānena .. jana-
padasa cha janasa daspanam, dhammānusasti cha dhammaparipuva
padasa .. janasa dasane cha, dhammānupa chha
cha; tadopaya esá bhayarati bhavati devánampiyasa Piyadasino
cha tadāpayāla se abhirāmi hoti devánampiyasa Piyadasine
raño bhāge añṇe.
rajine bhāge

Ninth Tablet.

Devánampiyō Piyadasi rájá evam áha:— Atta jano uchávacham
Devanampiyē Piyadasi lája hevam kahá:— ne uchávacham
mangalam karote, ábádhasavá .. aváhaviváhesu vá putalábhesu vá
mangalam kaletáti ábadha padāya
pavásamhi vá; etamhi cha añṇamhi cha jano uchávacham
pavásasi etāy; .. annāyevahidīsāye jane bahu .. kam
mangalam karote; Etatu mahádāyo bahuka cha bahu vidha cha ya-
mangalam ka .. Itthībinam .. cha bahu .. adha ni a .. yam cha
dam charadatham cha mangalam karote. Ta katavyamevata mangalam
..... mangalam kaleti. Se kataviyelevetam ananta le
apaphalam tu kho etadisam mangalam, áyata mahá phale mangale,
opapále .. cha kho esahadise mangal .. thi .. bahu phala, malagi ..
ya dhamma mangale, tata dāsa bhatakamhi sampatipatī, gurūnam
lata tesa .. i da. sam mupan kaleti alanam
apachiti sādhu; panesu sayame sādhe; bamhaṇa samañānam sādhudā-
..... samana bābhanānam dá-
nam: ete cha añacha etarīsam dhamma mangalam náma ta vatavyam
nam: esa .. añṇecha mangalam vat



á va putena va bhátá.. va svámikena va, sádhu, idam katavyam
 indá pi .. nápi bhátinápi suvámika.....
 angalam; áva tasa athasa nistánáya asti cha pávatam sádhu
 be ava tasa athasa nithánáya athi .. panamvate dāne
 rānam iti: Na tu etádisam asti dánam va anugaho va,
 sādhi: Se nathi e .. nam ete va
 ádisam dhammadānam va dhammánugaho vá, ta tu kho mitena va
 dhammādanē .. dhammanugahe
 suhadayena nātikena va sapáyena va ocháditavya tamátamhi paka-
 i inena .. sapáyena va viyovadita.....tasi paka-
 ráne: idam kacham, idam sádham iti; imani saka swagam
 lanansi i..... dha yitave
 áradhentu iti. Kicha miná katavyam, ta.. yáthá swagárádhi?
 áladhi.

Tenth Tablet.

Devánampiya Piyadasi rájá yaso va kíti vá na maháthávahi mañate
 piye Piyadasi lá... yaso vá vídhí va na bo na
 añata tadáptano (?) do gháya chame janá yasa dhamma sá pú-
 si yaso vá kadhivá ichhati ta dwaye annati ja...nesu pu-
 sunsatán dhammavatán va anuvidhiyatán etakáye Devánampiya Piyadasi
 nasu...a dhamma..... va etakáye iya
 rája yaso va kíti va ichhati; ya tu kinchi parákamate devánampiya Piya-
 davi palakamati devánampiye Piya-
 dasi rája ta savam páratikáye. Kinti sakale apaparásave asa; esatu
 sa Kinti sakama apapalásave apa kiti ...
 parásave ya apunñam. Dakaránta kho etam vadakená vajanena usaṭena va
 pama sa a kaṇe va
 añata agena parákamena savam parácha páptá (?) etata kho usatena
ta age.....na savam cha palili khu dakena
 dukaran...
 lápasatena va usatena cha dakalata.

Eleventh Tablet.

Devánampiya Piyadasi rája evam áha. Násti etárisam dánam yarisam
 dhamma dánam: dhamma sañstavo vá dhamma sañvibhāgo vá, dhamma
 sambandho vá!
 Tata idam bhavati; dāsa bhatakamhi sampatipatí; mātari pitari
 sádho sususā; mitasasuta nātakānam bāmbhaṇa samañānam sádhu dánam;
 Pāñānam anārambho sádhu: etam vatavyam pitá va putena va
 bhátá va mitasa sut (ena) bhata kena va vyava paṭivesiyehi, idam sádhu;
 idam katavyam:
 So tathá karu ilokavasa árádha hoti; parato vá anantañ punñam
 bhavati tena dhamma dánena.

Twelfth Tablet.

Devánampiyō Piyadasi rájá sava pásandáni cha pavajitáni cha gharistá cha pujayati, dánena cha vividháya pújāya pújayati n : na tu tathá dāna va pūja va Devánampiyō manñate yathá kīti : sára vadhbī asa, sava pásandānam sáro vadhyata bahu vidhá : (?) tadā gasa tu idam mūla ya vachaguti. Kinti áptapásandā puja va parápásandā garahá va ne bhavē, apakaraṇamhi lahaká va asa... tamatamhi pakarane ; pūjeta yá (n) tu eva parápásandā tena tena pakaraṇena ; evam katam áptapásandā (n) cha vadhayeti, parápásandāsa cha apakaroti, tadānñathá karoti ; áptapásandam cha chhaṇati parápásandāsa cha hi apakaroti : yo hi káchi áptapásandam pujayati, parápásandam va garahati sava áptapasandā bhatiyá kinti áptapásandam dipayema iti, yo cha puna tathá kará to áptapásandam bādhatarāma papapunāti tasa chevāno eva sādha. Kinti mañamanñasa dhammam suṇāta cha pusan serava evam hi Devánampiyasa ichha kītasaya pásandā bahu pūtá cha asu kalāṇágamā cha asu ye chai tata tata papunata hi vatavyam ; Devánampiyō—ne tathá dānam va pūja va manñate yathá kīti :—
“sári vadhbī asa sava pásandānam bahuká cha :—”

Etaya athāya vyapitá dhammamahāmátá cha ithaijha kho mähámátá cha vava (dha) kamika cha añe cha nikāyā ayanchu. Etasa phalāya áptapásandā vadhbī cha hāti, dhamasa cha dīpané.

Thirteenth Tablet.

? ? ? tasa pasamatá tatihatān bahutivatá kammata tatá pachhá adhaná-ladhesu kalingesu tí dhammaviyo..... vadho va maraṇam va apaváho va jana sata bādhe vedamatá chaganamatá cha devá (nampiyasa)... pá ; mátá pitari sususá, guru susúsá, mitasa sanstaya nātika vyasanam papunāti tata so pitesu upagbāto patipaṭi bhātevesiya pa ya tá násti manusāṇam ekatarāmahi pásandamhi na náma pásādeyavatako ya ta do naya saka va mitaveyāvapi apaviyo devánampiya (sa) yata paj i to pita sava bhutānām achhatá cha sayaman cha sama cheron cha madava cha Yona rája paran cha tena chaptāro rájano, TURAMAYO cha, ANTIKONO cha (?) MAGA' cha idha parinde (se) su..... savata Devánampiyasa dhammánusastin anuvatare yata pēdati. Vijayo savathá puna vijayo pīti raso sá ladhá sá pīti hoti dhammavijayaman. Vijayaman, ma vijetavyam man. N'ésarasake eva vijayechhati cha ilokiká cha pára lokiká cha.

Va SWETOHASTI SAVA LOKA SUKHA'HARO námá.

Fourteenth, and last Tablet.

Ayam dhammalipí devánampiyena Piyadasinā rañá likhápítá. Asti eva Iyam dhammalipi devánampiyena Piyadasinā lājina likhi..... sankhitena, asti majhamena, asti vistatena ; névayavam, pavata ghaṭitam ; athi majha..... nápayave,... savata ghaṭitam ; mahálaka pavijitam : bahu cha likhitam likhápoyisam cheva ; asti cha mahantehi vijaye ; bahu ke cha likhite ... likhi yisá..... athi pa cha etakam punepanavutam. Tasatasa athasa mádhúritāya katá ; jano, nit iti : jano,

cha patipajetha! Tata ekadā asamátam likhitam, asa desam cha,
hā patipajeyāti! Epi cha asamati... likhite..... sa...disam
BLACHEPU lipikarā paṇḍithena cha.

be.....pikalati.

r. *Translation of the first Tablet.*

s The following edict of religion is promulgated by the heaven-beloved king PIYADASI. "In this place the putting to death of anything whatever that hath life—either for the benefit of the puja, or in convivial meetings, shall not be done. Much cruelty of this nature occurs in such assemblies. The heaven-beloved king PIYADASI is (as it were) a father (to his people). Uniformity of worship is wise and proper for the congregation of the heaven-beloved PIYADASI rāja.

"Formerly in the great refectory and temple of the heaven-beloved king PIYADASI, daily were many hundred thousand animals sacrificed for the sake of meat-food. So even at this day while this religious edict is under promulgation from the sacrifice of animals for the sake of food, some two are killed or one is killed :—but now the joyful chorus resounds again and again—that from henceforward not a single animal shall be put to death!"

Notes to the First Tablet.

Iyam. In others of the *Girnar* edicts *ayam* is used for the feminine, as in Pāli.

Idha. The Pāli form of इह *idha* 'here.' In the *Cuttack* dialect, *hida*; see observations on the reading of *hidapālate*, &c. below. In the present passage at *Dhauuli*, 'savata,' every where, seems to be substituted.

Arabhitā, or *ārabhyatā*, for the vowel mark more resembles a *y*; Sans. वारभ्य slaughter of animals.

Paja hitāya (for the benefit of the people; Sc. for food) S. *praja hitāya*, has the support of the *Cuttack* text, but *puja hitāya*, 'for the efficacy of puja' as in *Girnar* seems preferable.

Samaja katavye, 'an assembly of beasts (not) to be made'—might allude to the practice of animal fights;—but as *samāja* comes afterwards twice, I prefer it here also, and would read *katavyam*.

Repidasam :—I have rendered this by रेप इह cruel sight or cruelty : the paṇḍit would read *bahukam idrisam*, 'much of this kind.'

Astipitu अस्तिपित्, 'is the father?'—perhaps in a deified sense?—were Piyadasi not in the nominative case I should be inclined to read *añapitam*, ordained by.

Ekachā, S. एकाचा one worship or worship of one object?—This sense is confirmed by the feminine adjective *sādhumatā*, excellent-minded or righteous. The *Cuttack* text is here erased but for *samāja* it reads *palāpe*, प्रलापे in conversation instead of in company.

Mahānase thupe — महानसः a kitchen and स्तूपः a tope or buddhist monument: but the latter word is doubtful and unsuitable.

Supāthāya स्तूप अर्थाय, *supa* is broth (or soup)—probably such as contained meat.

Aja, Pāli form of अद्य, hodie, to-day.

Dwāmarā ekomato. This passage is altogether very unintelligible:—I have rendered it द्वौमृता एकोमतः.

Ramajāna dhurā is also doubtful. रम्य pleasant गान song, ध्रुव, chorus or 'reprise'—are the basis of the translation I have conjecturally offered.

Translation of the Third Tablet.

Thus spake the heaven-beloved king PIYADASI:

“ By me after the twelfth year of my anointment, this commandment is made! Every where in the conquered (provinces) among the faithful whether (my own) subjects or foreigners, after every five years, let there be (a public) humiliation for this express object, yea for the confirmation of virtue and for the suppression of disgraceful acts.

“ Good and proper is dutiful service to mother and father;—towards friends and kinsfolk, towards brahmans and sramans, excellent is charity:—prodigality and malicious slander are not good.

“ All this the leader of the congregation shall inculcate to the assembly with (appropriate) explanation and example.”

Translation of the Fourth Tablet.

“ In times past even for many hundred years has been practised the sacrifice of living beings, the slaughter of animals; disregard of relations, and disrespect towards brahmans and sramans:—This day by the messenger of the religion of the heaven-beloved king PIYADASI, (has been made) a proclamation by beat of drum, a grand announcement of religi-

Notes to the Third Tablet.

Vijite, in the second tablet *vijitamhi*, in the *Cuttack* idiom *vijitamsi*; all variations of the Pāli locative case. *Vijitam* may, I believe, mean dominion generally as well as conquest.

Yote is the Sanskrit युक्ते; *yuge* on the other hand is योगे the devoted:—both nearly similar in signification.

Anusayinam, S. अनशयनं penitence. *Siyātu* स्यात् ‘let be’ is replaced by *nikhamaru* quasi निःचम भूवेत् ‘is undoubtedly proper,’ चम zeal, see the same word in the extract quoted below.

Dhāmma anusanstāya ‘for firmly establishing virtue’ अनुसंस्थाय and अपयशाकभाय ‘for the avoiding of disgraceful acts’ are imperfectly deciphered at *Dhauḷi*,—*Kamāne* and *anusayasa u*.

Nātinam samanānam, &c. in the genitive or rather dative case, are put in the locative *nātisū*—*samanehi*, (q. *nemsi*.) at *Dhauḷi*. The same holds for *pānānam*, replaced by *jivisu*, ‘among living things.’

Parisāpiyuto is, I suppose, compounded of परिषद् an assembly, अपि and युक्तः quasi the ‘leader of the congregation.’ The *Cuttack* text adds *chatiyatāni* quasi belonging to or near the *chetiya*?

Aparyoyatā, ‘lavish expenditure’—and *apabhindatā*, calumny, अपभेद or perhaps *apabhānditā*, ‘separation from society:’ भाण्ड (cooking vessel). Read *asādhu*. The *Dhauḷi* orthography of *riyatā* explains a word misunderstood on the pillars.

Heluto, exactly the Sanskrit हेतुतश्च व्यजनतश्च in the 5th case, *taspritya*,—‘as to cause, and as to effect, or token.’

Notes to the Fourth Tablet.

Atikāntam antaram, occurs too often to allow the reading adopted by the pandit, of the latter word as the verb *ātaran*:—it is clearly अतिक्रान्तं अन्तरं ‘elapsed interval’—used adverbially, and denoting that an anterior period of obedience existed.

us grace—and a display of equipages, and a parade of elephants, and things to gratify the senses, and every other kind of heavenly object for the admiration of mankind, such as had never been for many hundred years, such were to-day exhibited.

“ By the religious ordinance of the heaven-beloved king PIYADASI, the non-sacrifice of animals—the non-destruction of living beings, proper regard to kindred,—respect to brahmans and sramans: dutiful service to mother and father; dutiful service to spiritual pastors:—through these and many other similar (good acts) doth religious grace abound; and thus moreover shall the heaven-beloved king PIYADASI cause religion to flourish: and the same shall the sons, the grandsons, and the great-grandsons of the heaven-beloved king PIYADASI cause to abound exceedingly.

“ As long as the mountains shall endure, so long in virtue and in strict observances shall the religion stand fast. And through good acts of this nature,—that is to say—through these ordinances, and the strict practice of religion laxness of discipline is obviated. Moreover in this object it is proper to be intelligent and nowise neglectful. For the same purpose is this (edict) ordered to be written. Let all take heed to profit of this good object and not to give utterance to objections.

“ By the heaven-beloved king PIYADASI after the twelfth year of his anointment is this caused to be written.”

Bāmhana-samanānam, is curiously replaced at *Cuttack* by *samana-vipuyesu*, विप्रेषु of the same meaning, but throughout the *Cuttack* text the buddhist sramans have precedence of the brahmanical priests.

Charāganena, (charagana) ‘by the conveyer:’—at *Dhaulti*, *chalanena* ‘by the progress.’

Vimana, &c. There is a strange disagreement between the two texts in this sentence, apparently owing to misapprehension of the copyist. *Girnar* reads *vimana* ‘grief,’ *hassi* (हर्ष) ‘joy’—and *dapañā*, दर्पणात् ‘from the mirror of:’—*Dhaulti* has *vimāna* ‘equipage,’ *hathini* हस्तिनी ‘a female elephant’—and *dasanam* दर्शन ‘the sight of.’

Anga khandhāni, the five objects of sense.—*Aggikhandhāni*, on the contrary is the title of one of Buddha’s discourses, ‘the heap of fire.’

Yārisa-tārisa, and in the *Cuttack* idiom *ādise tadise* are the Sanskrit यादृश तादृश or in the modern Hindustani *jaisā taisā*.

Nabhūta puve, *Cuttack*—no *hūta puluve*, Sans. नभूत पूर्व.

Dhammanusastiyā—here we find the correct rendering of *anusathiyā* of the pillars: Sans. अनुशस्ति-स्त्या ‘by the ordinance of.’

Apavatakapā—or *kepam* from कप or केप ‘to move’—‘until the moving of the hills’—abbreviated by omission of *pavata*—quasi ‘until the break up (of all things)’—the pandit prefers कृपा, ‘benevolence, as enduring as the hills.’ See below.

Dhi cha ahini cha धी intellect—ही complaint, objection—or हानि abandonment.

Asilasa. The latter part of this edict is rather obscure: there is too much of a truism in अशोचः शोले नभवति besides *asilasa* is in the genitive case.

Translation of the Fifth Tablet.

Thus spake the heaven-beloved king PIYADASI:—

“Prosperity (cometh) through adversity, and truly each man (to obtain) prosperity causeth himself present difficulty—therefore by me (nevertheless) has much prosperity been brought about and therefore shall my sons, and my grandsons and my latest posterity, as long as the very hills endure, pursue the same conduct; and so shall each meet his reward!—While he, on the other hand, who shall neglect such conduct,—shall meet his punishment in the midst of the wicked [in the nethermost regions of hell.]

“For a very long period of time there have been no ministers of religion properly so called. By myself, then, in this tenth year of mine anointment, are ministers of religion appointed*: who, intermingling among all unbelievers (may overwhelm them) with the inundation of religion, and with the abundance of the sacred doctrines. Through *Kam(bocha, gan) dhāra, narāstika, Petenika*, and elsewhere finding their way unto the uttermost limits of the barbarian countries, for the benefit and pleasure of (all classes) ... and for restraining the passions of the faithful, and for the regeneration of those bound in the fetters (of sin?) are they appointed. Intermingling equally among the dreaded, and among the respected—both in *Pātaliputa* and in foreign places, teaching better things shall they everywhere penetrate; so that they even who (oppose the faith shall at length become) ministers of it.”

Notes to the Fifth Tablet.

The opening sentence in this tablet has evidently a close relation with that on the pillars beginning with the 17th line of the north side at *Delhi*, and as it presents no small difficulty to the translator, it may be as well to insert here the pillar version for comparison with the other two.

Kayānameva dekhati iyam me kayāne kateti: nomina pāpakam dekhati, iyam me pāpaka kateti.

The *Girnar* reading of *kalānām* confirms my pandit's assumption that *kayānam* should be rendered by the Sanskrit *kalyāṇam*, happiness, prosperity, rather than by *kshaya, kshayinī*, waste prodigality, as adopted by the Hon'ble Mr. TURNOUR, which would I imagine form *khaya, khayinī* in Pāli, and indeed we have this very word in another part of the inscription. The word naturally contrasting with *kalyāṇam* is *duḥkh* (दुःख) affliction, or *dushkaram* (दुःष्करं) evil, trouble, wicked: this latter might be softened in Pāli to *dukham*, or *dukam*, as we find in the two texts. We must not confound it with the second word *dekhati* of the pillars which is the verb *drishyati* दृश्यति 'appears.' But in the pillars the contrast is made by *pāpam*, or *pāpakam* 'wickedness.' Were the two new texts complete we might easily explain them, at present we can only conjecture. Thus the pandit gives it in Sanskrit: कल्याणं दुष्कराय चतएव कल्याणं श्रेष्ठ दुष्करं करोति तत्तमया बद्ध कल्याणः कृताः

* The *Cuttack* version differs so much in the latter part of this edict that a separate translation is necessary from the point here marked.

For this purpose is the present religious edict caused to be written.

*The Cuttack version continued from *.*

— who shall be intermingled with all the hundred grades of unbelievers for the establishment among them of the faith, for the increase of religion, and for their profit and gratification through the context of the sacred doctrines, in *Kambocha* and *Gandhāra*, in *Surāstrika* and *Pitenika*,... and even to the farthest (limits) of the barbarian (countries). Who shall mix with *brahmans* and *bhikshus*, with the poor and with the rich,—for their benefit and pleasure, to bring them unto the righteousness which passeth knowledge; and for those bound in the fetters (of sin) this new bond of precious knowledge is made for their final emancipation which is beyond understanding: and among the terrible and the powerful shall they be mixed both here and in foreign countries, in every town, and among all the kindred ties even of brotherhood and sisterhood, and others every where! and here also having penetrated, for there is religious darkness (?) even in the

Parechatanayā, परेचतनया मम my posterity—तनयः 'a male descendant.' To this is added in the *Cuttack* version *apatiye अपत्यं* 'offspring male or female.'

Anuvatasare, either अनुवत्सरे 'yearly;' or better अनुवर्तिष्यन्ते, shall uphold.'

Pihāpayisati विहापयिष्यति or perhaps, *pesāpayisati* पिस, to injure, to destroy.

Kāsati,—*kacchati*: precision will no longer allow the reading formerly adopted of *gacchati* 'goes.' In its stead we have a choice of काशति, कचते, कश्चते, all synonymous as 'shines,—' *prakāśh kartā*, illuminates:—or of कसति, कंसे from कस to go, to approach or meet, which I prefer: सुकृतं and दुष्कृतं, good and evil recompense, contrast as well as the places of their reward; and *pudālayesu* can only be explained as पुत आलयेषु in the mansions of the *put* hell—to which the childless are condemned, and which is said to have a most abominable stench.

Pakaramhi pāpe, प्रकर heap, पाप sin.

Dhammamajjunayō, मज्जनया: 'by drowning in dharma.'

Dhānma sūtasā chayena, सूतस्य चयन; *dhammādhithānāya* अधिष्ठान abiding.

Kambochā, &c. for these places see observations *sanyena संयः* union.

Aparātā bhata mayesu अपरात having nothing beyond, भट barbarian मर्या boundary.

Aparāgodhāya, अपरागोधं restraint of passion.

Apalibodhāya, अपरिवोधं not within knowledge.

Pativāddhanāya is from प्रतिवाध repeated opposition. I read प्रतिविधानाय for re-arrangement, substituted ceremonial.

Paṭalipute cha bāhiresu cha, is replaced in *Cuttack* (which is nearer the capital) by *hida cha bāhiresu cha* इहचबहिषुच.

Anubandhapajāti, प्रज्ञाति: pre-eminent knowledge.

Bhikaresu, भीकार worker of dread: *thairesu*, शैर्य a name of distinction which is commonly found in Pāli books written *thero*, 'reverend, or honorable.'

Olodhanesu, from कृद the loins or कुर: the breast and धन treasure?

Bhātānam, va bhaginīnam भ्रातृणां भगिनीनां.

Dānasayute, dhammayute दानयुज charitable, धर्मयुज righteous.

very metropolis of religion, every question shall be asked among the charitable, and these being themselves absorbed in righteousness, shall become ministers of the faith (?). For this express reason is this religious edict promulgated ; for evermore let my people pay attention thereto !

Translation of the Sixth Tablet.

Thus spake PIYADASI the heaven-beloved king !

“ Never was there in any former period a system of instruction, applicable to every season and to every action, such as that which is now established by me !

“ For every season, for behaviour during meals, during repose, in domestic relations, in the nursery, in conversation, in general deportment, and on the bed of death, every where instructors (or *Pativedakas*) have been appointed:—accordingly do ye (instructors) deliver instruction in what concerneth my people.

“ And every where in what concerneth my people do I myself perform whatsoever with my mouth I enjoin (unto them); whether it be by me (esteemed) disagreeable or whether agreeable. Moreover for their better welfare among them an awarder of punishment is duly installed. On this account, assembling together those who are dwelling in the reputation of much wisdom, do ye meanwhile instruct them as to the substance of what is hereby ordained by me for all circumstances and for all seasons. This is not done by me in any desire for the col-

Dhammanisā tativam. I am quite unable to give the sense of this passage ; *nisā* निशा night, is feminine as *iyam*, and *adhithāne* अधिस्थाने is in the locative—hence the turn I have adopted.

Pathaviyam, may be प्रथय्य to be questioned.

A'ea pavaṭa kapā, and *āra kapam*, I have rendered by यावत् पर्वतकल्पं and यावत् कल्पं as long as the age of the hills—or simply for a *kalpa*, or immense period. The long *ā* in *kapā* inclined the pandit to understand कृपा a benevolence—as enduring as the hills. (See last tablet.)

Notes to the Sixth Tablet.

Pativedanā, प्रतिवेदना information either delivered or received by espionage?—*pativedaka*, the giver of or agent to receive the same: instructor is the more probable.

Tā eva katam, or *yā kate*—*tat* and *ye* the participles should agree in both cases.

Bhunjamāna—same, भुञ्जमान eating, सम quiet—quere sleep ?

Orodhanamhi—अवरोधने in the secluded apartment or *zenāna*?—implying as I presume conjugal or domestic relations, or see another explanation offered in the last tablet.

Garbhāgārāmhi, nearly of the same import—or गर्भगार the womb.

Uyānesu उद्यानेषु in going up—or in articulo mortis?

Stitā, स्थिता the verb (or rather participle) is avoided in the *Cuttack* text by carrying to the imperative *vedayantu*. The other has *pativedetha* in the second pers. plural, imper. mood.

Mukhalo मुखतस् orally—from the mouth.

lection of worldly gain, but in the real intention that the benefit of my people shall be effected; whereof moreover this is the root, the good foundation, and the steady repose in all circumstances: there is not a more effectual mode of benefitting all mankind, than this on which I bestow my whole labour.

“ But upon how many living beings (I will pass over the mention of other things) do I confer happiness here:—hereafter likewise let them hope ardently for heaven! amen!

“ For this reason has the present religious edict been written:—May it endure for evermore; and so may my sons and my grandsons and my great-grandsons uphold the same for the profit of all the world, and labour therein with the most reverential exertion.”

Translation of the Seventh Tablet.

The heaven-beloved king PIYADASI every where ardently desireth that all unbelievers may be brought to repentance and peace of mind. He is anxious that every diversity of opinion, and every diversity of

Dapakam-sarāpakam दर्पकं what kindles—or is pungent and disagreeable? satire: स्तवकं praise—eulogy—what is sweet.

Vāyavā—(Cuttack version, *va eva*) Sanskrit वैव.

Mahāthe—tesu .. reads at Dhauli, *mahāmatesu*, among the right-minded.

Achāyiko—*atīyāyike*, the awarder of अत्याय death, punishment.

Vividoni—*vividēvani*, विविद्वानी कीर्ति fame proceeding from wisdom.

Anapitam—*anusathi* are here seen to be synonymous; अनुशसि order.

Vasantam living (sub. *janam*) *parisāya*, and *paripāya* are nearly synonymous.

Uddhinamhi—a doubtful word—उद्यम्य a wish?

Atha sanstiranāya from अर्थ संस्थिरणं collection or security of property?—more correct in the other idiom *santilanāya*, शान्ति calm or repose in a religious sense.

Ustānam—only explicable by the other text *suthānam* or सुस्थान the excellent abode; see *uddhinamhi*.

Parākamami aham, or *ahakam*—अहं—this is the first time I have met with the first personal pronoun nom. sing.

A'nanna gaccheyam, seems introduced parenthetically (others I will not approach) अन्यन्नगच्छेयं,—but the passage is doubtful.

Idha chanāni, इहचनानि—things connected with here, probably *kāni*, how many.

Agena—I have been here compelled to acknowledge Mr. TURNOUR's more correct interpretation—see note on the alphabet. अय, chief.

Notes to the Seventh Tablet.

Ichhati is written *ivati* in the Girnar copy, by mistake?

Vaseyu, वशेयु may incline or desire, वश.

Sa-yamam, समयम religious restraint: at Cuttack, *sachhāman*, सच्छमं righteous; from सत्शम, repose.

Bhāva sudhī, भावसुद्धि quiet of conscience, purity of mind.

Uchāvacha, उचावच high and low—extremes.

passion may shine forth blended into one system, and be conspicuous in undistinguishing charity! Unto no one can be repentance and peace of mind until he hath attained supreme knowledge, perfect faith which surmounteth all obstacles, and perpetual assent.

Eighth Tablet.

In ancient times, festivals for the amusement of sovereigns consisted of gambling, hunting the deer (or antelope) and other exhilarating pleasures of the same nature. But the heaven-beloved king PIYADASI having attained the tenth year of his anointment, for the happiness of the wise by him hath a festival of religion (been substituted):—and this same consisteth in visits to brahmans and sramans, and in almsgiving, and in visits to the reverend and aged; and the liberal distribution of gold, the contemplation of the universe and its inhabitants, obeying the precepts of religion, and setting religion before all other things, are the expedients (he employs for amusement) and these will become an enjoyment without alloy to the heaven-beloved king PIYADASI in another existence.

Chhando, छन्दः opinion : रागः passion, taste.

Ekadesam, of one country, or एकादश of One kind, but such a word does not exist.

Vidula (*Cuttack*) विदुल expanded—*visule* (*Girnar*) is doubtful in the second syllable.

Kalam nātā,—कलमज्ञता, supreme wisdom.

Daḍhabhātī, दडभक्ति great faith or devotion ; *tārini*, तारिणी that transports.

Nicha, नित्य always—The *Cuttack* version omits the two foregoing qualifications, and retains only *bāḍham*, बाढ assent.

Notes to the Eighth Tablet.

Rājāno viharayātā, the plural *rājāno* seems here to be joined by *saṃās* with विहार यात्रा: although contrary I believe to rule, to express that such amusements were common to all *rājas*:—the *Cuttack* text has the singular noun.

Neyaka, I have translated gambling, from न्यय waste, न्यायक; but perhaps it should be adjectively applied as extravagant or destructive, to hunting.

Etamagavyā, from एतः a deer? मगया (properly मगया in the feminine, for the *Cuttack* text is right in using *magaviyam* in the neuter) the chase.

Abhiramakāni, pleasureable :—also, *abhiramāni* for अभिरम्यानि; *ahun punso*, अभवन् पुंसः, the so should be carried on.

Abhisito santo,—in Sanskrit सन् being : as the ablative absolute.

Thairānam vadhānam, here we have the parallel to the Pāli *thero* in वृद्धानां aged.

Hiranna patiividhāno—प्रतिविधानं, repaying with interest.

Dhamma paripuca, परिपूर्व placing before all else.

Tadopaya, तदुपाय means, expedient for this.

Ahayaarati, pleasure without fear, is replaced in the *Cuttack* text with *abhirāma* imply enjoyment.

Bhāge anñe, in another भाग, fortune, or life.

Ninth Tablet.

Thus spake king PIYADASI beloved of the gods!

“Each individual seeketh his own happiness in a diversity of ways: in the bonds of affection,—in marriage, or otherwise,—in the rearing of offspring,—in foreign travel:—in these and other similar objects doth man provide happiness of every degree. But there is great ruination, excessive and of all kinds, when (a man) maketh worldly objects his happiness. On the contrary this is what is to be done,—(for most certainly that species of happiness is a fruitless happiness,)—to obtain the happiness which yieldeth plentiful fruit, even the happiness of virtue; that is to say;—kindness to dependants, reverence to spiritual teachers are proper; humanity to animals is proper: almsgiving to brahmans and sramans is proper:—all these acts and others of the same kind are to be rightly denominated the happiness of virtue!

“By father, and by son, and by brother: by master (and by servant) it is proper that these things should be entitled happiness. And further for the complete attainment of this object secret charity is most suitable: yea there is no alms and no loving kindness comparable with the alms of religion and the loving kindness of religion, which ought verily to be

Notes to the Ninth Tablet.

A'ha:—Whether by mistake or otherwise, the *Cuttack* text has *kahá* the modern Hindustáni verb.

Atta jano, आत्म जन: each man *respectively*, properly आत्मने for himself.

Uchāvacham, see last edict—of high or low degree.

A'bādhasi eva, or *ābadhasi*, from आवद्ध: bonds of affection, or ornament, which latter will perhaps contrast better with the other objects.

Avāha-vivāhesu, विवाह marriage, अविवाह the opposite state.

Putalābhesu, पुत्रलाभ acquisition of a son—प्रवास foreign residence.

Mahādōyo, दाय: destruction, calamity.

Charadatham, चरदथे संगलं happiness in things of ordinary occurrence.

Ta-katavyameva, तत्कर्तव्यमेव in Sanskrit this member of a proposition comes before the explanation of its nature.

A'yata, आयत long, diffuse—the nouns are here put in the locative case without apparent reason: *etatkartavyam mahaphalé mangale*, &c. this is to be done in (or to obtain) profitable happiness.

Bhatakamhi, भूतक the hired labourer.

Apachiti, अपचिति worship, salutation.

Svāmika, *svāmika*, स्वामिक a master, lord—as a contrast I have inserted *bhataka*, servant, to fill a space of 3 letters.

Pāvatam, प्रावृतं concealed, covered.

Suhadayena natikena, सुहृदयेन ज्ञातिकेन;—*sapāyena* may be 'impassionate.'

Uchādītavya, उच्छादित elevated, purified, manifested? तन्मात्रे प्रकरणे entire fulfilment; or it may be read *ramatamhi*, राम or रम्य agreeable; or तत्समते of this mind.

upheld alike by the friend, by the good-hearted, by kinsman and neighbour, in the entire fulfilment of pleasing duties.

“This is what is to be done: this is what is good. With these things let each man propitiate heaven. And how much ought (not) to be done in order to the propitiation of heaven?”

Translation of the Tenth Tablet.

The heaven-beloved king PIYADASI doth not deem that glory and reputation (are) the things of chief importance; on the contrary (only for the prevention of sin?) and for enforcing conformity among a people praise-worthy for following the four rules of virtue, and pious, doth the heaven-beloved king PIYADASI desire glory and reputation in this world; and whatsoever the heaven-beloved king PIYADASI chiefly displayeth heroism in obtaining, that is all (connected with) the other world.

For in every thing connected with his immortality there is as regards mortal things in general discredit. (?) Let this be discriminated with encouragement or with abandonment, with honour or with the most respectful force, and every difficulty connected with futurity shall with equal reverence be vanquished.

Kacham, कच्यं to be done—distinguished from *katavyam* what ought to be done?

Swaghrādhi, (? á) seems used substantively: *káchana-iná*, &c. may be read as काचन एनाकर्त्तव्या यथा स्वर्गाराध्यः—*ená* for *esá* (*kriyá*) how much ought this to be done, as the propitiation of heaven?—

Some passages in the Cuttack text differ from the other, but they are too much mutilated to be separately interpreted.

Notes to the Tenth Tablet.

Maháthá ráhi, either महार्था of great importance or महाशुभः great praise.

Tadóptano-do-ghôya, &c. the whole of this passage is unintelligible without alteration—the pandit reads धर्मचतुर्षु प्रशंसता धर्मवता अनविध्यतां.

Etakâye—*paratikâye* misunderstood in the pillar edict *hidakâye*, *paratikâye*.

Apunñam, *apakitti*, अपुण्णं, अपकीर्त्ति, disgrace, vice.

Apaparásave, अपपरासवे 4th case from परासु, on account of immortality?

Vadakena, *vajanena*, admit of two interpretations either वादकेन वाजनेन by the minister and by the people, or वर्दकेन by separating and वर्जनेन by abandonment, i. e. by discrimination.

Dakarantu and *dukarantu*, I can only explain by deriving the first from दृ to fear, avoid, दत्तं कुर्वन्तु and the second from दुष्कुर्वन्तु labour strenuously, the whole passage is difficult, and *dukarantu* is not properly a verb—it should be *dukaran* *kurvantu*, Páli, *karonfu*.

Eleventh Tablet.

Thus spake PIYADASI the king beloved of the gods!—There is no such charity as the charity which springeth from virtue!—(which is) the intimate knowledge of virtue, the inheritance of virtue, the close union with virtue! And in these maxims is it manifested: “kindness towards servants and hirelings; towards mother and father dutiful service is proper;—towards a friend’s offspring, to kindred in general, to brahman and sraman, almsgiving is proper: avoiding the destruction of animal life is proper.” And this (saying) should be equally repeated by father and by son, by brother and friend’s son, (?) by the hireling and even so by neighbours in general!

This is excellent—and this is what ought to be done!

And whoso doeth thus, is blessed of the inhabitants of this world: and in the next world endless moral merit resulteth from such religious charity.

Twelfth Tablet.

The heaven-beloved king PIYADASI propitiateth all unbelievers, both of the ascetic and of the domestic classes; by charitable offerings and by every species of puja doth he (strive to) propitiate them. Not that the beloved of the gods deemeth offerings or prayers to be of the same (value) with true glory. The promotion of his own salvation promoteth in many ways, the salvation of all unbelievers of which indeed this is the root, and the whole substance.

Notes to the Eleventh Tablet.

Sanstavo, संस्तवः intimate knowledge—or संस्तव eulogy?

Samvibhāgo, संविभागः inheritance, or the due distribution of religious duties?

Sambandho, सम्बन्धः property, union, friendship.

Vatavyam, perhaps वर्तितव्यं to be performed, from वृत् rather than वक्तव्यं to be spoken.

Natikānam if the ā were long it might be ज्ञातृकाणां pandits.

Bhātaka, भूतक a hired labourer.

Sampatipati, the original has the m written with a stroke beneath apparently to serve as the *ryanjan* of the Sanskrit:—it must have been written by mistake in lieu of the *anusvara*.

Notes to the Twelfth Tablet.

Pujayati, पूजयति propitiates by puja.

Pāsandāni parajitāni—gharistāni, प्रविजितान् ascetics those who have entirely conquered their passions—गृहस्थान् *grihist* or laity, possessing homes and families. It will be remarked that the accusative case plural is made to terminate in *āni* instead of *ān*.

Again, the propitiation of the converted heretic, and the reproof of the unconverted heretic must not be (effected) by harsh treatment: but let those who enter into discussion (conciliate them) by restraint of their own passions, and by their mild address. By such and such conciliatory demeanour shall even the unconverted heretics be propitiated. And such conduct increaseth the number of converted heretics, while it disposeth of the unconverted heretic, and effecteth a revolution of opinion in him. And (he) encourageth the converted heretic, while he disposeth completely of the unconverted heretic, whosoever propitiateth the converted heretic, or reproveth the unconverted heretic, by the pecuniary support of the converted heretic. Moreover we thus stimulate materially the converted heretic. And whoso, again, doth so, he purifieth in the most effectual manner the heretic; and of himself such an act is his very breath, and his well-being.

Moreover 'hear ye the religion of the faithful and attend thereto:' even such is the desire, the act, the hope of the beloved of the gods, that all unbelievers may speedily be purified, and brought unto contentment speedily.

Furthermore from place to place this most gracious sentiment should be repeated:—

Sāra vadhi, स्मार essence, marrow, excellence—वृद्धि increase. I have been forced to translate this by periphrasis as salvation: perhaps it should be taken with *kīrti*—*kīrti sāra* being a common expression, but the second time it occurs without it.

Aptapāsanda, आप्तः aptus, apt, gained, obtained.

Garahā, गर्हा abuse, censure: the sentence beyond is incomplete.

Apakaraṇamhi, अपकरणं from प्रकरणं treating with respect or doing well—rather than अपकरणं putting away.

Lōpakā, disputants? लप to contradict, dispute, speak—the verb for this is wanting.

Tamatamhi, तमत desires, libidinous? तम dark: better *tam matamhi*, of this mind.

Chhanati, क्षणति according to the pandit signifies praises, gives pleasure to,—in the dictionary 'injures, kills,' or क्षिणेति diminishes; *garahati*, गर्हति blames. So, the nominative pronoun is omitted.

Apakaroti, undoes, puts to a distance—this verb governs a genitive.

Bhatayā, भृत्या by the hire, or pecuniary employment.

Dipayema, we stimulate, दीप kindle.

Maṇamanāsa—मन्यमान obedient, faithful.

Ṣuṇita? शृणुत hearing, or शृणुत शृणुषत hear ye and obey.

Pasannata, प्रसन्नतः with (or from) grace.

Sava vāgūti—I can only render this, by सर्ववाग् इति *sarva vāgiti*—this is the whole story.

Pujatayātu, पूज्यतां यांतु let be propitiated, (*yāntu*, in the plural, is required.)

Tasa chevāno,—*tasya cha evā āno*, आनः vital breath.

Aṣu, seems used for the verb सन्तु *santu*—or it may be आशु instantly.

“The beloved of the gods doth not esteem either charitable offering or puja, as comparable with true glory. The increase of blessing to himself is of as much (importance) to all unbelievers.”

For this purpose have been spread abroad ministers of religion, ministers possessing fortitude of mind, and practisers of every virtue* : may the various congregations co-operate (with them) for the accomplishment therefore. For the increase of converts is indeed the lustre of religion.

Thirteenth Tablet.

..... Whose equality, and exertion towards that object, exceeding activity, judicious conduct afterwards in the *Kalinga* provinces not to be obtained by wealth the decline of religion, murder and death, and unrestrained license of mankind ; when flourished the (precious maxims) of *Devánampiyō*, comprising the essence of learning and of science :— dutiful service to mother and father ; dutiful service to spiritual teachers : the love of friend and child ; (charity) to kinsfolk, to servants (to brahmanas and sramanas, &c. which) cleanse away the calamities of generations : further also in these things unceasing perseverance is fame. There is not in either class of the heretics of men, not, so to say, a procedure marked by such grace, nor so glorious nor friendly, nor even so extremely liberal as *Devánampiyō's* injunction for the non-injury, and content of living creatures and the Greek king besides, by whom the kings of Egypt *PTOLEMAIOS* and *ANTIGONOS* (?) and *MAGAS*, both here and in foreign (countries) ; every where the religious ordinances of *Devánampiyō* effect conversion, wherever

Yecha, further, यच्च ‘and this.’

Ichhā kṛitāsaya इच्छा कृति आशयः wish, act, hope? perhaps the last word should be *sara*.

Ithaijha, ऐथ्ये fortitude of mind—whence *thairo* or *thero*.

* Or as in the opening remarks, three grades of ministers, *dhamma mahāmātās*, *thaijha* (or *thero*) *mahāmātās*, and *vividha kamikās*, subordinate or working agents.

Notes to the Thirteenth Tablet.

Pasamatā, &c. These words are all Sanskrit, प्रशमता तदीहता वञ्चनीयता कर्मतन्त्रता: and they all apply eulogistically to *tasa*, whose ; but the name of the party thus praised is unfortunately erased.

Adhanaladhesu अधनलब्ध not acquired or acquirable by wealth ; an epithet proving that the ‘Calingæ oræ maritimæ’ were in those days rich and populous.

Dhammaviyo ध्वव waste, destruction of religion?

Aparūha; बाह carrier of a burthen, that is being under restraint? *aparādha*, non-endurance.

Badhe बढ to be powerful or large?—or better *vadhe*.

Achhata अक्षता purity समाचारो?—the rest is gone.

they go ; conquest is of every description : but further the conquest which bringeth joy springing from pleasant emotions, becometh joy itself ; the victory of virtue is happiness : the victory of happiness is not to be overcome. That which essentially possesses a pledge of happiness,—such victory is desired in things of this world and things of the next world !

And (this place) is named the WHITE ELEPHANT conferring pleasure on all the world.

Fourteenth Tablet.

This religious edict is caused to be written by the heaven-beloved king PIYDASI. It is (partly) (written) with abridgment ; it is (partly) with ordinary extent ; and it is (partly) with amplification : not incoherent (or disjointed) but throughout continuous (and united) it is powerful in overcoming the wise ; and it is much written and caused to be written, yet it is always but the same thing repeated over and over again. For the persuasive eloquence which is lavished on each separate subject shall man the rather render obedience thereunto !

Furthermore, at one time even unto the conclusion is this written, incomparable in manner, and conformable with the copy, by RELACHEPU the scribe and pandit.

Yona raja, see opening remarks.

Pitiraso sáladha प्रीतिरस सुलब्धः for want of a better interpretation !

Man, this syllable more than once repeated may stand for *mangalam*, commonly written मं, in Sanskrit Manuscripts.

Nāsarasake, मंजुलं न्यासरसकं conferring permanent happiness, न्यास a pledge.

Svetahastī, written, *pasti* on the cloth copy :—also *pavā loka*, which I correct to *sava* by the addition of a stroke to the *p*—the *p*, *h*, and *s* are frequently mistaken inter se by the transcriber.

Notes to the Fourteenth Tablet.

Sankhitena asti संक्षिप्तेन abridged. See Pāli grammar, page 133, *pubbena gāman*, east of the village, for this use of the 3rd case.

Majhamena, मध्यम middle, mean : *vistitena* विस्तृत spread.

Nācayavam, compounded न and अवयव divided into syllogisms?

Pavala or *savala*, on rocks, or every where. घटित devised, attempted, in contact with.

Likhapāyisam, for *payitam*, resembles the inflection still retained, *pāyis*, finding.

Punepanavalam, पुनः पुनश्च done again and again.

Mādhūritāya, माधुरिता sweetness, figuratively.

Asamātām, आसमाप्तं to the conclusion.

Sachhāya kṛānanacha, सख्य करण an act with a shadow or copy?

Pandithena, the the should be ते ; it may be पांडवेन by one of the Pandava caste.

REMARKS, *On the first edict.*

The understanding of the opening sentence of this edict baffled me for a long time because of the separation of the word *kanchi* by the termination of the first line—*idhanakam chijivam* was the obvious and unintelligible reading; for it must be remarked that throughout the *Girnar* and *Cuttack* inscriptions the words are all run into one another, Sanskrit fashion, and we are deprived of the material help afforded by their separation on the *Delhi* pillars.

There is also more uncertainty in the value of many of the letters particularly the vowels, in this than in many of the following edicts; probably from its being at the top it was more exposed to the weather and less accessible to the copyist. I cannot therefore be satisfied with my translation until I get a facsimile.

It seems to have been a common practice with Buddhist kings to commence their reign by proclaiming a prohibition of the destruction of animal life. Thus in the second *taranga* of the *Raja Tarangini* the following account of the first act of MEGHAVÁHANA*, a Buddhist sovereign of *Káshmir* of the third or fourth century:

तस्याभिषेक एवाज्ञां धारयन्तेधिकारिणः ।
 सर्वतोमार मर्यादा पट्टदानुद्धोषयन् ॥
 कस्याणिनायाणिवधे तेन राज्ञानिवारिते
 निष्पापां प्रापितावृत्तिं स्वकोपात् शैनिकादयः ॥
 तस्यराज्येजिनस्येव मारविद्वेषिणः प्रभोः ।
 कृतौष्टतपशुः पिष्टपशुभंत वल्गावभूत् ॥

“ At the time of (MEGHAVÁHANA's) coronation, his ministers by his command sounded the drum in all places for the prohibition of slaying.

“ The killing of living beings being restrained by the prosperous king, his ministers obliged (the people) to resort to sinless occupations according to their several means.

“ In his reign, who equalled JINA (Buddha) the successful opponent of KA'MA an animal for sacrifice was made (in effigy) of cakes and clarified butter.”

The expression *ekáchá samája sádhumatá*, might almost be interpreted, ‘ the worship of ONE is wholesome for the congregation ;’ but it is remarkable that throughout the document there is no mention of the deity, or any object of direct worship. The sacred DHAMMA, ‘ virtue,’

* This name reminds us forcibly of the epithet of AIRA RAJA at *Khandgiri* :— I find no account given of its origin, but the pandit supposes it may have been a title obtained from his invasion of *Ceylon*, to which island (being befriended by VARUNA) the Cashmir raja was conveyed without touching the water.

or 'the law' is held forth as the great rule of conduct, and future happiness or punishment are inculcated as the motives, but neither BUDDHA, nor any member of the Hindu pantheon is introduced by name or allusion. I dare not imagine that by the expression—*raja asti pitu*, it is intended that the *rāja* was a deified object, to whom alone reverence (*ekārchā*) was to be paid.

On turning to the infallible *tika* upon our inscriptions afforded by Mr. TURNOUR's admirable *Mahawanso*, we find a circumstance recorded which may help us materially to understand the obscure passage relating to the *mahānaso* or kitchen. It seems that ASOKA followed for three years the example of his father in bestowing food daily on sixty thousand brahmans. On the change of his faith the brahmans were discharged, but an equal number of Buddhist priests were maintained in their stead, and their food doubtless was of a more simple and harmless nature.

*Tato rājā pasanno so digunena dine dine
Bhikkhu satthi sahaṣṣāni anupubbenupatthahi.
Tittthiyānan sahaṣṣānan nikkadḍhiwona satthi so,
Satthi bhikkhu sahaṣṣāni ghare nicchamahhojayi.*

'Thereafter this king increasing the number from day to day gave alms to sixty thousand Buddhist priests as formerly (to the brahmans). Having dismissed the sixty thousand heretics, he constantly maintained in his palace sixty thousand Buddhist priests.'

[For remarks on the second tablet see the February number.]

Remarks on the Third Tablet.

Nothing in this edict calls for particular notice. The term *vijite* conquered country is, as in the second edict, applied to *Surāshtra*—not to *Cuttack*. The appointment of an *anusayanam* or feast of repentance, every five years, is unknown I believe to the religionists of either denomination nowadays; though its efficacy in removing sin is acknowledged by MANU.

आपनेनानुतापेन तपसाध्यनेनच । पापहन्मुच्यते पापैर्दानेनचदमेनच ।

'By confession, by penitence, by fasting, by reading the sacred texts, the sinner is absolved from his sins, also by almsgiving, and by restraint of the passions.'

Did not the two texts agree, it would be preferable to read *anusāsanam*, a public promulgation of the sacred maxims every five years, otherwise it does not well appear why their specification should here be introduced. Of the maxims themselves it is also worthy of notice that they are not conformable to any particular creed—they comprehend neither the eight *mārgas* (ways); not the four *satyas* (truths) of the



Buddhists; nor yet the five great sacraments*, nor the four domestic sacraments of MENU†.

They are all however frequently alluded to as good acts, and the brahmans do not yield to their rivals in applauding either humanity to animals, or charity to one's neighbour.

The word *parisāpiyutō* seems derived from *parishat*, an assembly, S. परिषद् the president of the assembly.—It would seem that names had not been assigned to the grades of priesthood by the use of this and other general terms *mahāmātā*, &c. throughout the inscription, or that it applied to no particular sect.

Remarks on the Fourth Tablet.

The publication 'by beat of drum' here alluded to may reasonably be supposed to be the very one recorded in the Ceylonese annals as having taken place on ASOKA'S hearing of the construction of the various viháras throughout his kingdom;—[*Mahawanso. Epit. p. 37.*]

*Lekhe sutwā, mahārājā, mahātejjiddhī wikkamo,
Kātu, kāmō sakinyewa sabbā vāma mahāmahan,
Purabherin charāpēsi "sattame diwase ito.
Sabbārāmamaho hotu sabba desesu ekadā."
Yojane yojane dentu Mahādānam mahātale.
Karonfu gāmārāmānan maggānancha wibhūsanān.
Wihāresu cha sabbesu bhikkhu saṅghassa sabbathā,
Mahādānāni, wattentu yathā kālan, yathā balan,
Dipamālā pupphamālā lankāre cha tahn tahn,
Turiyehi cha sabbehi upahārūn anekadhā.
Upasathangā nādāya sabbe dhamman kunantu cha,
Pujāwisēse nekecha karontu tadahū picha.*

"Having heard these dispatches read, the glorious, the superlatively-gifted, the victorious sovereign having resolved on having a great festival of offerings at all the temples at the same moment caused to be published by beat of drum through the capital; 'On the seventh day from hence throughout all the kingdoms in the empire let there be a great festival of offerings held on the same day. Throughout the empire at the distance of each yojana let there be great offerings bestowed. Let there be decorating of the roads to villages as well as temples. In all the viháres let almsgiving to the priesthood be kept up in every respect, as long as practicable, and liberally as means will allow.

"At those places decorated with festoons of lamps and garlands of flowers in various ways and joyous with every description of music, let a *great procession* be celebrated, and let all persons duly prepared by a life of righteousness, listen to the doctrines of the faith, and let innumerable offerings be made on that day.' "

* पाठोच्चेमयातिथीनां सपर्यां तर्पणं बलिः । एतेष्वहमहायज्ञा ब्रह्मयज्ञादिनामकाः
reading the Veda, sacrifice, of the *homa*, hospitality, offering to manes, &c. grace at meals (libation to the gods). *Amara cosha.*

† The domestic sacraments differ only in the omission of the *homa*. MENU Chap. II. 86.



The ambiguous terms (alluded to in the notes) *vimana dapaná*, *hassi dapaná*,—may be the titles of some particular discourses of BUDDHA, 'the mirror of grief' and 'the mirror of hilarity'—for we find the next expression *agikkhandhání* (though it should be in the singular rather than the plural) is explained by Mr. TURNOUR to be the parable of the "hill of fire,"—a celebrated discourse of BUDDHO, which had special effect in the conversion of distant nations: thus in the *Mahawanso*:

Gantwá parantakán théro Yónakó Dhammarakkhitó
Aggikkhandhópumánsuttán kathetwá janamajjhagó.
So sattatísá sahassán páné tathá samógatē
Dhammámata mapayési dhammāddhammesu kówidó.
Purísánám sahassancha, itthiyócha tatodhiká,
Khattiyánán kuláyéwa nikkhamitwánupabbajun.

'The théro yónako DHAMMARAKKHITO repairing to the *Aparantaka* country in the midst of the populace preached the "*aggikkhandópuman*" discourse (of BUDDHO). This (disciple), who thoroughly understood how to discriminate true from false doctrines, poured out to the seventy thousand who had assembled before him the delicious (draught of the) true faith. A thousand males and a still greater number of females, descendants exclusively of *khathiya* families, pelled by their unreligious ardor, entered into the priesthood.'

Remarks on the Fifth Edict.

The deputation of missionaries to different countries is particularly described in the *Mahawanso*, Chapter XII. of which I here annex the translation only, as the passage is rather long.

"The thero son of MOGGALI, having terminated the third convocation, was reflecting on futurity: perceiving that the times had arrived for the establishment of the religion of BUDDHO in foreign countries he dispatched severally in the month of 'Kattiko' the following theros to those foreign parts.

"He deputed MAJJHANTIKO to *Kasmira* and *Gandhára*, and MAHADEVO to *Mahisamandalam*: RAKKITO to *Wanawasi*, and YONA DHAMMARAKKHITO to *Aparantaka*. He deputed MAHADHAMMAKKHITO to *Maharatta*, and MAHARAKKHITO to the *Yona* country: MAJJHIMO to the *Himawanta* country and to *Sowanabhumi* the two theros SONO and UTTARO. He deputed MAHAMAHINDO, together with his (MOGGALI's) disciples ITTIYO, UTTIYO, SAMBALO BHADDASALO (to *Ceylon*), saying unto these five theros, 'Establish ye in the delightful land of *Lanka* the delightful religion of the vanquisher (*Jina*).'

The only places in the above list which agree with the more authentic record of our inscription are *Gandhára* and *Aparantaka*. The former of these is known as the country of the *Gandaridæ* or *Gandarii* of STRABO and HERODOTUS. Professor WILSON has collected all that can throw light on the position of this nation in his notes on the History of Cashmír, As. Res. XV. 104. That it was situated in the Panjáb there is every reason to conclude, and now that we know the Buddhist

sources of information open to the Egyptian geographers we may adopt PTOLEMY'S locality—"Inter Suastum et Indum sunt *Gandaræ*," with confidence. *Candahar*, if one of the Alexandrias, must be thrown out of the question.

Aparantaka of the *Cuttack* text I should have translated as the uttermost boundary 'place having no beyond'—the ultima Thule in short of the BUDDHISTS; were it not accounted by Mr. TURNOUR, as a distinct country, one however as the glossary tells us "not yet identified." The mode of spelling the word at *Girnar*, (*Aparáta*,) may help us in identifying it with the *Aparytæ* of the Greeks—for HERODOTUS couples this nation with the *Gandarii* as having served in the army of XERXES Σατταγύδαι δὲ καὶ Γανδάριοι καὶ Δαδίκαι τε καὶ Απαρυται—formed together the seventh prefecture of the Persian empire, under DARIUS HYSTASPES. Who the latter were, professor WILSON says is still dubious—the name he adds may be derived from *apara* ulterior or *western*, and thus the sense reverts to my first supposition. But the inscription has *aparátábhata-mayesu*, in the boundaries of *aparátábhata*; a term more nearly agreeing with the reading of the Ptolemæan name by ISIDORE—*aparbartica*, which RENNELL converts into *apárbatata* a low-lander*.

Kambocha, must be the *Camboja* so often mentioned in WILFORD'S essays, and by him, I know not on what authority, always classed with the mountainous tract of *Ghazni*.

Pitenika or *Pcteni* may certainly be the *Plithana* of the *Periplus*, which Dr. VINCENT, following WILFORD, establishes as *Pultana* in the *Dakhan* about twenty days' journey south of *Barugáza*, or *Baroach*, a mart of some importance in the time of ARRIAN. It may however be objected that all the rest of the names denote countries not cities, and that *Pultana* seems too near home to be mentioned among countries out of India proper; yet I can hardly concur with WILFORD'S speculations regarding *Paithinistán* and carry it all the way to Egypt, notwithstanding the alliance with PTOLEMY†.

Of *Suláthika* in the *Cuttack* text, all I need remark is that its omission at *Girná*r is so far evidence that *Kattywar* or the *Gujerát* peninsula was included in the district of *Suráshtra*,—*Tes-suriosta* or *Surastrene* of the Greeks. Further the orthography of the name both here and in a Sanskrit inscription which I shall soon have occasion to describe, is *Surashtra*; not *Saurashtra* as modern authors generally write it. And the Greek orthography is therefore the more correct.

Of those names of countries which are indistinct in the two texts it is unnecessary to say any thing until we obtain a more correct copy.

* WILSON, *As. Res.* XV. 104.

† *Asiatic Researches*, III. 338.

The only other name that occurs is one of some importance and celebrity, being no less than *Pāṭaliputa* itself the capital of the *Mauryan* dynasty of *Magadha*, known as such in the Buddhist annals, and in the Greek authors as *Palibothra*. In Sanskrit it is written with precisely the corresponding orthography, पाटलिपुत्रः, but in the Buddhist annals we find sometimes *Patiliputto*, with the dental *t*. No clue is afforded of the position of the town by the inscription, but it is remarkable that the name is omitted at *Dhauḷi*, and in its stead the expression *hida cha* 'here'—'at home'—as contrasted with *bāhilesu cha*, or *bāhiresu*, 'without, abroad, among foreign countries' बाह्येषु. Of *hida*, for इह more will be said when I speak of the dialect.

Remarks on the Sixth Tablet.

I was inclined at first to look upon the *prativedakas*, as a kind of *khobar navis* or newswriters appointed every where to send information to the sovereign of what was going on among the people, as is universally the practice with native courts at this day:

Or again the recurrence of the word *atham* (*artham*) which means wealth, riches, as well as interest, object, might induce some to consider them inspectors appointed to assess the wealth of the people,—for the collection of revenue, *arthasanstiranā*?

But the sense adopted is preferable, and we may either regard this edict as setting on foot an extensive system of national education (an education in which conduct through life was the thing taught)—or a system of judicial administration to take cognizance and decide on all departure from the moral law—and this latter is the more likely, because the mention of *atyāyaka* or agents of punishment immediately follows.

The adjudication of punishments is treated of at greater length in the west compartment of the *Delhi* pillar, the correct interpretation of which is still a desideratum.

Remarks on the Seventh Tablet.

The only remark which it occurs to me to make on this short sentence, relates to the last word *bāḍham*, which I stated, in my translation of the inscription round the shaft of the *Feroz lāt* at *Delhi*, not to be Sanskrit. True it is not to be found in *WILSON'S Dictionary* nor in *COLEBROOK'S Amara cosha*, but *KAMALĀKĀNTA* informs me now that the word बाढं *bāḍham* frequently occurs in Sanskrit works. Thus, in *Bhavadēva Bhaṭṭa's Dasakarma* this word is given with the signification of assent "yes." The guru is instructing the novice what he is to do, ब्रह्मचारी सर्वत्र बाढमिति ब्रूयात्, 'the pupil answers to all this

“*bādham*” or yes. गाढं बाढं दढं प्रेढ are expletives used to complete verses according to the *Kavikalpalata*.

The sense therefore of the pillars sentence—*Dhammavādhiyācha bādham vādhisati*, should be “and by the growth of grace, *assent* will also increase.”

Remarks on the Eleventh Tablet.

I am not sure whether in lieu of the sense adopted in the translation of this sentence, we should not understand by *dhamma dānam*, the gift of *dharma*, or religion;—which gift transcends all other alms inasmuch as it brings the blessings of this world, and eternal happiness in the next,—and the *anantam punñam*, or endless moral merit will thus accrue not to the mere obeyer of the moral maxims inculcated, but to the sovereign who bestowed so great a gift on his subjects. More competent scholars must decide this point.

The *Cuttack* text does not contain a copy of this edict, which may be accounted for by its being in substance a repetition of a part of the preceding edict. The word *mitasasuta*, though it occurs twice in the course of the short paragraph is by no means a satisfactory reading—it looks in the original more like *mita sastata*, a facsimile will probably remove this ambiguity.

Remarks on the Twelfth Tablet.

That this edict should likewise not be included in the *Dhaulti* series may be explained, by supposing that the Buddhist religion already predominated in the *Kalinga* provinces, and that therefore there was less necessity to prescribe rules of conduct towards those who were well inclined to become converts than others. By *apta* and *para-pāsanaḍ*, I should have understood well-disposed and obdurate heretics, had not the concluding sentence, ‘the increase of the *aptapāsandaḥ* is the splendour of religion’ shewn that the former must be rendered heretics actually converted, or converts.

The continual recurrence of the same words makes it nearly impossible to give an elegance to a translation which I strive to preserve as literal as possible; there are also not a few ambiguities which cannot be cleared until we have an actual facsimile. In fact I have had more trouble with this than most of the foregoing tablets. Having merely a dictionary for my guide I am perplexed how to translate such an expression as *Sāravadhī*, सारवद्धिः *sāra* has a dozen meanings, pith, essence, vital part, substance, marrow, wind, sickness, cream, firmness, water, wealth, propriety, steel, climax! but none of these applies to the condition, that, increased in the king, it should also be increased in all *heretics*. What constituted his *glory* would also constitute theirs, namely,

their conversion ; it must then be connected with *kīrti* ; the 'pith' of his religious merit or glory, must be a *blessing* or *salvation*, and by this periphrasis have I therefore ventured to translate the term, which as the basis of a strong and magnanimous argument is twice repeated in the course of the paragraph.

[For the Thirteenth tablet see the opening remarks.]

Remarks on the Fourteenth and last Tablet.

When I first transcribed this tablet to read it over with the pandit, he exclaimed at the word *sankhitena*, and wondered at the ignorance of the scribe who could have pretended to call such corrupt and illiterate language by the sacred name of *Sanskrit*. A little inquiry however convinced us that the word *sanskritam* was always written *sankotam* in *Pāli*, while the *Pāli* word *sankhittam*, with double *t*, regularly represented the Sanskrit संक्षिप्त 'abridged.' Thus in the second line of the Mahawanso itself we find almost the very expressions in the paragraph before us:

*Porānchi kalopeso, atiwitthārīto kwachi,
Atiwakwachi sankhittō, aneka punaruttako.*

Which the Hon'ble Mr. TURNOUR thus translates :

"That which was composed by the ancient (historians) is in some respects too concise, in others too diffuse, abounding also in the defects of tautology."

The resemblance here to *asti sankhitena*, and *asti vistatena*, is remarkable:—and in *aneka punaruttako*, we perceive an analogy to *etakam punepunavutam*.

It might be objected that *pt* is never in the *Girnar* text contracted to *tt*, but is written at length, as in *chaptāro, āpta* ; but here again it may be answered that the *p* in *apta* was necessary to distinguish it from *otta*, the Sanskrit *ātma*, which in *Pāli* proper is written *atana*.

Another example may be quoted from the preface to Mr. TURNOUR's work, wherein the words occur as in our text, in the third case.

It is a citation from the commentary on the *Rupa siddhi*, speaking of KACHCHĀYANO the grammarian, (KATYA'YANA:)

*"Tabhansi kōcchāyamīti Kacchāyano, kōcchāyaṇ,
Kacchāyaṇō nāma? Yo etad aggaṇ, Bhikkhawé!
Mama sāvakanāṇ bhikkūnaṇ sankhittēna
Bhāsīssa witthārena althāṇ wibbajantānaṇ
Yadidaṇ mahākacchāyaṇoti etad aggē thapito
Bhagawā mān chatuparisa majjhē nisinnō.*

(If I am asked) who is this KACHCHA'YANO? whence his name KACHCHA'YANO? (I answer) It is he was selected for the important office (of compiling the first *Pāli* grammar): "Bhikkhus, from amongst my sanctified disciples, who are capable of elucidating in detail that which is expressed in the abstract, the most eminent is MAHA'KACHCHA'YANO." Thus said BHAGAWA' seated in the midst of the four classes of devotees (of which his congregation was composed).



But there is no occasion to go further:—all will acknowledge that the language of the inscription is not Sanskrit.—What is it then? To answer this question I must solicit still a little space. First however I must take a review of the *Girnar* alphabet, for it is evident that it contains many additions to the more simple elements of the pillars. These additions, to which only I have time to allude, will be found to complete the alphabet to the existing standard of the Páli of *Ceylon*.

§ 1. *Completion of the Alphabet.*

The most remarkable change observable in the alphabet has already been noticed in my paper of last June, namely the substitution of the letter | for ॡ in all words now written with an *r* in Sanskrit, but on the pillars spelt with an *l*, as ॡ ॡ ॡ ॡ ॡ, &c. now corrected to ॡ ॡ - ॡ ॡ | ॡ *rāja, dasaratha*, &c. Although there are many words in the Sanskrit in which the use of the *l* and *r* is indifferent, still the invariable employment of the former liquid, does not appear to have been ascribed to any of the numerous *Prākritis* or even the *Apabhraṅsas*, by the Sanskrit grammarians. In a succinct account of the peculiarities of the latter extracted by the learned Prof. LASSEN from the *Prākrit* grammar called *Kalpataru*, we find only one allusion to the intermutation of *r* and *l*:—

स्याद् द्राविडी नस्य विपर्ययेण पाश्चात्यजा स्याद् रलपद्येण ।

Siet *Drāvidī* litteræ n permutatione, Pāschātyā immutatione *r* et *l*.

Now the *Paschātynjá* are those born in the west (of India), and we should thence expect the *Gujerát* orthography rather than that of *Cuttack*, *Delhi* or *Allahabad* to be deficient in the distinction of the two liquids, unless indeed the term were employed by a writer of Bengal, for they like ourselves give the name of western provinces (*sc.* of this presidency) to all west of *Allahabad* and the Ganges; and of east, only to those east of *Patna*. The exclusive use of *l* belongs to the Chinese family of nations.

Of other letters made known by the *Girnar* tablets we may notice first in order the ॡ or *gh*, which can no longer be denied a place, or confounded with any other letter, because it now occurs in the well known word *gharistāni* (S. *grihastāni*), and in *megha*, *ghara*, *ghāta*, &c. of the *Kalinga* and *Sainhadri* inscriptions. These words it must be observed occur only in those tablets of the *Cuttack* inscription wherein the letter | is used, and which so far resemble in dialect those of *Girnar*. The orthography of *grihastāni* on the pillars is *girithāni*. It does not therefore follow necessarily, though there is every probability thereof, that the *g* is never used for *gh*; but when we find the aspirate pre-

sent in other words of the same monuments, such as *ghanti*, *sāṅghathasī*, &c. we are bound not unnecessarily to aspirate the simple *g*, where it can be read without doing so. Thus the word *aga* of the inscription must be read as *agra* अग्रा, rather than *agha*, अघ; and Mr. TURNOUR's reading of *agāya* and *agena* in the opening of the pillar edict is correct; while my own reading, *aghāya*, *aghena*, must be abandoned. I am the more anxious to acknowledge my error, and make the amende to my friend, our *only* Pāli scholar, because at the end of the sixth tablet we find the same adjective employed:—*idam añata agenā parākamena*, 'this with the utmost respectful force,'—here the sense insisted upon by my pandit of 'than which all else is sinful' cannot certainly be applied to *parākrama*, heroism, on account of the context.

The nasal of the first class of consonants, or gutturals has not been yet recovered, because its place is generally supplied by the *anuswara*; but in one or two places I think the ङ may be traced in its primitive form of 𑀓: at any rate it may be safely *constructed* so, from the analogy of the form in the No. 2 alphabet 𑀓 also found on the coins in the name *Simha vikrama* (written sometimes 𑀓𑀲 *siṅha*), and from the more modern form of the Tibetan 𑀓 *ng*.

The letter *jh* ञ, is of rare occurrence, even in the Sanskrit. It is not therefore to be wondered at, that we should be tardy of discovering it in the ancient alphabet. Yet in *Pāli* this letter takes the place of the Sanskrit ञ in *madhya*, *madhyama*, 'middle,' and perhaps of *ry* in *nirjita* and of *rdy* and *ryy* and other similar compounds which in pronunciation assimilate to *jh*; and it is thus more likely to be found in a Pāli than a Sanskrit monument. On my first review of the pillar alphabet I was inclined to look upon the letter 𑀓 as *jh*, from its occurrence in the word 𑀓𑀲𑀓 *majhimā*, coupled with *ukasā* and *gevaṃyā*, domestics and ascetics, but it seemed better explained by *ri* in other places. A similar expression in one of the *Girnar* again leads me to consider it as *jh*, viz. '*sankhitena, majhamena, vistitena*,' where the central word is written 𑀓𑀲𑀓 𑀓 both in the *Girnar* and in the *Dhauḷi* versions of the concluding paragraph. Again in the pillars it is generally inflected with the *i* or the *ā* vowel mark, which could not be the case with *ri*; and lastly, it bears considerable affinity to the Bengali 𑀓 *jh* which also resembles the *ri* of the same alphabet; I therefore now pronounce 𑀓 without hesitation to be a *jh*; and I must modify former readings accordingly*.

* This it is not difficult to accomplish: ex. gr. in the western tablet of the *Feroz* lāt, *nāsantan nijhipayitā dānamdahanti*, may be Sanskritized as follows: नार्हतनिर्धाय

The *n̄* of the second class, or palatials is an acquisition upon which there is no room to doubt. It is a peculiarity in the Páli language that this letter, which has the pronunciation of *ny*, both supplies the place in the Sanskrit compound letter *jn* in such words as *rájñah* राज्ञः 'of a prof'ce, and अज्ञा *ájñá*, 'order'—and of *ny*, or *ny* in such words as अन्यतः *anyatah*, else, अन्यःनि *anyáni*, others; and in मन्यते *manyatè*, Páli *maññate*, deems. Now these and many other examples occur most opportunely in the *Girnar* inscriptions—the letter ण, with the necessary, vowel, inflections णे, णा, or णो being invariably employed in all such cases; as in the sixth tablet above quoted, ४ ६ ८ १ २ ३ ४ ५ ६ ७ ८ ९ १० ११ १२ १३ १४ १५ १६ १७ १८ १९ २० २१ २२ २३ २४ २५ २६ २७ २८ २९ ३० ३१ ३२ ३३ ३४ ३५ ३६ ३७ ३८ ३९ ४० ४१ ४२ ४३ ४४ ४५ ४६ ४७ ४८ ४९ ५० ५१ ५२ ५३ ५४ ५५ ५६ ५७ ५८ ५९ ६० ६१ ६२ ६३ ६४ ६५ ६६ ६७ ६८ ६९ ७० ७१ ७२ ७३ ७४ ७५ ७६ ७७ ७८ ७९ ८० ८१ ८२ ८३ ८४ ८५ ८६ ८७ ८८ ८९ ९० ९१ ९२ ९३ ९४ ९५ ९६ ९७ ९८ ९९ १०० १०१ १०२ १०३ १०४ १०५ १०६ १०७ १०८ १०९ ११० १११ ११२ ११३ ११४ ११५ ११६ ११७ ११८ ११९ १२० १२१ १२२ १२३ १२४ १२५ १२६ १२७ १२८ १२९ १३० १३१ १३२ १३३ १३४ १३५ १३६ १३७ १३८ १३९ १४० १४१ १४२ १४३ १४४ १४५ १४६ १४७ १४८ १४९ १५० १५१ १५२ १५३ १५४ १५५ १५६ १५७ १५८ १५९ १६० १६१ १६२ १६३ १६४ १६५ १६६ १६७ १६८ १६९ १७० १७१ १७२ १७३ १७४ १७५ १७६ १७७ १७८ १७९ १८० १८१ १८२ १८३ १८४ १८५ १८६ १८७ १८८ १८९ १९० १९१ १९२ १९३ १९४ १९५ १९६ १९७ १९८ १९९ २०० २०१ २०२ २०३ २०४ २०५ २०६ २०७ २०८ २०९ २१० २११ २१२ २१३ २१४ २१५ २१६ २१७ २१८ २१९ २२० २२१ २२२ २२३ २२४ २२५ २२६ २२७ २२८ २२९ २३० २३१ २३२ २३३ २३४ २३५ २३६ २३७ २३८ २३९ २४० २४१ २४२ २४३ २४४ २४५ २४६ २४७ २४८ २४९ २५० २५१ २५२ २५३ २५४ २५५ २५६ २५७ २५८ २५९ २६० २६१ २६२ २६३ २६४ २६५ २६६ २६७ २६८ २६९ २७० २७१ २७२ २७३ २७४ २७५ २७६ २७७ २७८ २७९ २८० २८१ २८२ २८३ २८४ २८५ २८६ २८७ २८८ २८९ २९० २९१ २९२ २९३ २९४ २९५ २९६ २९७ २९८ २९९ ३०० ३०१ ३०२ ३०३ ३०४ ३०५ ३०६ ३०७ ३०८ ३०९ ३१० ३११ ३१२ ३१३ ३१४ ३१५ ३१६ ३१७ ३१८ ३१९ ३२० ३२१ ३२२ ३२३ ३२४ ३२५ ३२६ ३२७ ३२८ ३२९ ३३० ३३१ ३३२ ३३३ ३३४ ३३५ ३३६ ३३७ ३३८ ३३९ ३४० ३४१ ३४२ ३४३ ३४४ ३४५ ३४६ ३४७ ३४८ ३४९ ३५० ३५१ ३५२ ३५३ ३५४ ३५५ ३५६ ३५७ ३५८ ३५९ ३६० ३६१ ३६२ ३६३ ३६४ ३६५ ३६६ ३६७ ३६८ ३६९ ३७० ३७१ ३७२ ३७३ ३७४ ३७५ ३७६ ३७७ ३७८ ३७९ ३८० ३८१ ३८२ ३८३ ३८४ ३८५ ३८६ ३८७ ३८८ ३८९ ३९० ३९१ ३९२ ३९३ ३९४ ३९५ ३९६ ३९७ ३९८ ३९९ ४०० ४०१ ४०२ ४०३ ४०४ ४०५ ४०६ ४०७ ४०८ ४०९ ४१० ४११ ४१२ ४१३ ४१४ ४१५ ४१६ ४१७ ४१८ ४१९ ४२० ४२१ ४२२ ४२३ ४२४ ४२५ ४२६ ४२७ ४२८ ४२९ ४३० ४३१ ४३२ ४३३ ४३४ ४३५ ४३६ ४३७ ४३८ ४३९ ४४० ४४१ ४४२ ४४३ ४४४ ४४५ ४४६ ४४७ ४४८ ४४९ ४५० ४५१ ४५२ ४५३ ४५४ ४५५ ४५६ ४५७ ४५८ ४५९ ४६० ४६१ ४६२ ४६३ ४६४ ४६५ ४६६ ४६७ ४६८ ४६९ ४७० ४७१ ४७२ ४७३ ४७४ ४७५ ४७६ ४७७ ४७८ ४७९ ४८० ४८१ ४८२ ४८३ ४८४ ४८५ ४८६ ४८७ ४८८ ४८९ ४९० ४९१ ४९२ ४९३ ४९४ ४९५ ४९६ ४९७ ४९८ ४९९ ५०० ५०१ ५०२ ५०३ ५०४ ५०५ ५०६ ५०७ ५०८ ५०९ ५१० ५११ ५१२ ५१३ ५१४ ५१५ ५१६ ५१७ ५१८ ५१९ ५२० ५२१ ५२२ ५२३ ५२४ ५२५ ५२६ ५२७ ५२८ ५२९ ५३० ५३१ ५३२ ५३३ ५३४ ५३५ ५३६ ५३७ ५३८ ५३९ ५४० ५४१ ५४२ ५४३ ५४४ ५४५ ५४६ ५४७ ५४८ ५४९ ५५० ५५१ ५५२ ५५३ ५५४ ५५५ ५५६ ५५७ ५५८ ५५९ ५६० ५६१ ५६२ ५६३ ५६४ ५६५ ५६६ ५६७ ५६८ ५६९ ५७० ५७१ ५७२ ५७३ ५७४ ५७५ ५७६ ५७७ ५७८ ५७९ ५८० ५८१ ५८२ ५८३ ५८४ ५८५ ५८६ ५८७ ५८८ ५८९ ५९० ५९१ ५९२ ५९३ ५९४ ५९५ ५९६ ५९७ ५९८ ५९९ ६०० ६०१ ६०२ ६०३ ६०४ ६०५ ६०६ ६०७ ६०८ ६०९ ६१० ६११ ६१२ ६१३ ६१४ ६१५ ६१६ ६१७ ६१८ ६१९ ६२० ६२१ ६२२ ६२३ ६२४ ६२५ ६२६ ६२७ ६२८ ६२९ ६३० ६३१ ६३२ ६३३ ६३४ ६३५ ६३६ ६३७ ६३८ ६३९ ६४० ६४१ ६४२ ६४३ ६४४ ६४५ ६४६ ६४७ ६४८ ६४९ ६५० ६५१ ६५२ ६५३ ६५४ ६५५ ६५६ ६५७ ६५८ ६५९ ६६० ६६१ ६६२ ६६३ ६६४ ६६५ ६६६ ६६७ ६६८ ६६९ ६७० ६७१ ६७२ ६७३ ६७४ ६७५ ६७६ ६७७ ६७८ ६७९ ६८० ६८१ ६८२ ६८३ ६८४ ६८५ ६८६ ६८७ ६८८ ६८९ ६९० ६९१ ६९२ ६९३ ६९४ ६९५ ६९६ ६९७ ६९८ ६९९ ७०० ७०१ ७०२ ७०३ ७०४ ७०५ ७०६ ७०७ ७०८ ७०९ ७१० ७११ ७१२ ७१३ ७१४ ७१५ ७१६ ७१७ ७१८ ७१९ ७२० ७२१ ७२२ ७२३ ७२४ ७२५ ७२६ ७२७ ७२८ ७२९ ७३० ७३१ ७३२ ७३३ ७३४ ७३५ ७३६ ७३७ ७३८ ७३९ ७४० ७४१ ७४२ ७४३ ७४४ ७४५ ७४६ ७४७ ७४८ ७४९ ७५० ७५१ ७५२ ७५३ ७५४ ७५५ ७५६ ७५७ ७५८ ७५९ ७६० ७६१ ७६२ ७६३ ७६४ ७६५ ७६६ ७६७ ७६८ ७६९ ७७० ७७१ ७७२ ७७३ ७७४ ७७५ ७७६ ७७७ ७७८ ७७९ ७८० ७८१ ७८२ ७८३ ७८४ ७८५ ७८६ ७८७ ७८८ ७८९ ७९० ७९१ ७९२ ७९३ ७९४ ७९५ ७९६ ७९७ ७९८ ७९९ ८०० ८०१ ८०२ ८०३ ८०४ ८०५ ८०६ ८०७ ८०८ ८०९ ८१० ८११ ८१२ ८१३ ८१४ ८१५ ८१६ ८१७ ८१८ ८१९ ८२० ८२१ ८२२ ८२३ ८२४ ८२५ ८२६ ८२७ ८२८ ८२९ ८३० ८३१ ८३२ ८३३ ८३४ ८३५ ८३६ ८३७ ८३८ ८३९ ८४० ८४१ ८४२ ८४३ ८४४ ८४५ ८४६ ८४७ ८४८ ८४९ ८५० ८५१ ८५२ ८५३ ८५४ ८५५ ८५६ ८५७ ८५८ ८५९ ८६० ८६१ ८६२ ८६३ ८६४ ८६५ ८६६ ८६७ ८६८ ८६९ ८७० ८७१ ८७२ ८७३ ८७४ ८७५ ८७६ ८७७ ८७८ ८७९ ८८० ८८१ ८८२ ८८३ ८८४ ८८५ ८८६ ८८७ ८८८ ८८९ ८९० ८९१ ८९२ ८९३ ८९४ ८९५ ८९६ ८९७ ८९८ ८९९ ९०० ९०१ ९०२ ९०३ ९०४ ९०५ ९०६ ९०७ ९०८ ९०९ ९१० ९११ ९१२ ९१३ ९१४ ९१५ ९१६ ९१७ ९१८ ९१९ ९२० ९२१ ९२२ ९२३ ९२४ ९२५ ९२६ ९२७ ९२८ ९२९ ९३० ९३१ ९३२ ९३३ ९३४ ९३५ ९३६ ९३७ ९३८ ९३९ ९४० ९४१ ९४२ ९४३ ९४४ ९४५ ९४६ ९४७ ९४८ ९४९ ९५० ९५१ ९५२ ९५३ ९५४ ९५५ ९५६ ९५७ ९५८ ९५९ ९६० ९६१ ९६२ ९६३ ९६४ ९६५ ९६६ ९६७ ९६८ ९६९ ९७० ९७१ ९७२ ९७३ ९७४ ९७५ ९७६ ९७७ ९७८ ९७९ ९८० ९८१ ९८२ ९८३ ९८४ ९८५ ९८६ ९८७ ९८८ ९८९ ९९० ९९१ ९९२ ९९३ ९९४ ९९५ ९९६ ९९७ ९९८ ९९९ १०००

The next form of *n*, belonging to the *cerebral* series, has already been made known to us from the *Sainhadri* cave inscriptions, ॥; and the modern derivative forms were on that occasion described (see page 1045 of volume VI.) In the present inscription this *n* invariably follows the letter *r* as in Sanskrit; ex. gr. ८ ९ ८ ॥ ॥ *Dhammacharanam* 'the progress of religion.' The vowel affixes are united to the central perpendicular stroke as ॥ ॥ ॥ *ne, ná, nq.* A few words written in Sanskrit with the dental *n*, are found in the inscription written with ॥, as *jana-sa, dasanam* (7th and 8th tab.) and the same holds good of the grammatical Páli of books. It should be remembered that in the regular *Prákrit*, this is the only *n* which ever stands singly in a word.






The only letter of the labial series which was yet wanting to us, the *ph*, is most fortunately recovered through the indubitable expression *mūlāni cha phalāni cha* in the second tablet of *Girnar*—'both roots and fruits'—written ८ ९ ८ ॥ ॥ ८ ९ ८ ॥ ॥. In the letter ८ we at once perceive the prototype of the ८ of No. 2, and the ८ of the Tibetan alphabet—पायित्वा दानं दास्यन्ति, 'expelling the murderer (from the town or community) they shall give him an aim.' And in the edict regarding animals,—*ta se sajive nojhāpayitaviye*—'such while life remains shall not be abandoned,' ८ ९ ८ ॥ ॥ and in the last tablet for *dhamma niyame nijhayitā bhuye*, read निर्जयितव्येत् 'the rules of dharma shall be inviolable.'







bet : and we see the reason why this was departed from in the Nágari form, फ, by turning the stroke outward, lest by turning inwards it should be confounded with the व or sh, a letter unknown in our old alphabet. With reference to my former remark on the duplication of alphabetic forms to produce the aspirates, it may be adduced as an additional argument for such an assumption that in the oldest of three plates from *Kaira* with copies of which I have been lately favored by Dr. A. BURN, the *ph* of the word *phala* is twice written 𑀧 or *pp* in lieu of 𑀧 ; which is the augmented or aspirated form used in the other plates, and which is more consistent with the original type now disclosed to our knowledge.

Of the *bh* I would merely take this opportunity of noticing that I have discovered the period and cause of the two very opposite forms of this letter which are found in later alphabets, as for instance the Mahratta च and the Tibetan ཅ (which agrees with the Devanágari or Kutila of the 10th century 𑀧) and have proved them both to descend from the original 𑀧 ; the Mahratta may be said to follow naturally from the *Sainhadri* form ; the other I have traced on the Saurashtra coins of SKANDA and KUMARA GUPTA, where sometimes the one and sometimes the other form is employed, the latter being the natural course followed by the pen in imitating the sculptured letter 𑀧, beginning at the top, viz : 𑀧, whence would gradually follow 𑀧, and 𑀧 with the headstroke, common to all the modern characters.

The Páli contains but one *s*. We cannot therefore expect to find in our ancient alphabet the prototype of either the Sanskrit श or ष. Of these letters I only notice the early forms because I have inserted them in the accompanying lithographed plate. The modern form of ष would seem to be derived from the 𑀧 of the Samudragupta or No. 2 alphabet, where again it might be presumed that it was introduced as a trifling modification of the letter 𑀧, or *s*,—in fact, by closing the outer stroke or doing the same thing to this as was done to the *p*, to have the effect of duplication or aspiration. Or, it may be more proper to consider it a written modification of the more ancient form 𑀧 found on the copper-plate grants of the third century dug up in the *Gujerat* peninsula, whence the transition is more evident and palpable to the various Páli and Sinhalese forms, the Cashmere form and even the modern Nágari and Bengáli.

It is not so easy to trace the origin of the *táliba sha*, श, in the old alphabet but there is plausible reason to suppose that this was originally merely the *murdina* or cerebral 𑀧, turned in an opposite direction, invented to denote another modification of the sibilant required in the refinement of the Sanskrit alphabet. In the oldest Guieráti plates, these are writ-

ten   ; and exactly the same structure is retained in the square Páli alphabet or stone letter of Barma, except that the stroke in the centre is contracted into a dot,  ; further they are merely rounded in the modern Burmese for the facility of writing,   . In no other alphabets that I know of are the analogies to the original type so faithfully preserved as to shew that these two sibilants were originally the same letter reversed in position, a mode frequently adopted, as I have had occasion to notice before, in Indian alphabets to represent slight modifications in sound, (see vol. VI. p. 475-6.)

The most ancient *Sanskrit* form, however, of the *táliba sh* is one I have just discovered on a genuine inscription of the time of CHANDRAGUPTA, where it is written  and  . This type is evidently the original of the form so common on early Hindu coins and inscriptions, , whence are directly descended the Tibetan , the Bengáli , and the modern Nágari , which heretofore presented a kind of anomaly in the derivation of our alphabetical symbols.

Having thus recovered the complete, and as I consider it the primeval alphabet of the Indian languages, I have arranged in the accompanying plate the changes each letter has undergone in successive centuries, as deduced from absolute records on copper or stone. The table furnishes a curious species of palæographic chronometer, by which any ancient monument may be assigned with considerable accuracy to the period at which it was written even though it possess no actual date.

I begin with the sixth century before the Christian era,—because I suppose that the alphabet which we possess, as used by the buddhists of a couple of centuries later, was that in which their sacred works had been written by the contemporaries of BUDDHA himself, who died in the year 543 B. C.

What in some measure confirms this hypothesis is, that the *Sanskrit* character of the third century before Christ, (of which I have introduced a specimen in the plate from the genuine document above alluded to*,) differs only so much from the original form as the habits of a class of writers distinct in religion and more refined in language might naturally introduce :—just as we afterwards find an equal degree of modification from the type of ASOKA's time, in the *Sanskrit* alphabet of five centuries later, on the pillars.

The ASOKA alphabet (the *Sanskrit* one) agrees very closely with that of our *Surashtra* coins, which may thence be pronounced to be anterior to the Gupta series. The *Gujerat* plates dated in the third century of the samvat era, differ but little from the *Allahabad* pillar or *Samudra-*

* I hope to be able to insert an account of this inscription in my next journal.

gupta inscription, but that little is all in favor of their superior antiquity.

Of the more recent alphabets it is unnecessary to say any thing. The Tibetan is acknowledged to be of the seventh century. The *Kutila* alphabet is taken from the inscription sent down in facsimile by Colonel STACY from *Bareilly* :—we learn thence that the artist was of *Canouj*, and we see that the Bengali, which was drawn from the same focus of learning near a century afterwards, does not differ more from it, than the modifications it has undergone since it was domiciled in the lower provinces will explain ;—indeed all old Sanskrit inscriptions from *Benares* to *Cuttack* differ only from the *Kutila* type in having the triangular loop, २, instead of the round one ३.

A hundred other modifications of the primitive character might be easily introduced, were I to travel southward or to cross to *Ava* or *Ceylon* ; but I purposely avoid swelling the table ; and include only those epochas of the Indian alphabet which can now be proved from undeniable monuments. On a former occasion (Vol. VI. p. 222) the *Amaravati*, *Hala Canara* and *Telinga* alphabets were traced to the *Gupta* as their prototype, and thus might others be deduced : but another opportunity must be sought of placing the whole in a comprehensive table*.

In conclusion, I may again regret that our printers did not take for their standard the form that would have served to blend the Bengali and the Hindi into a common system !

§ 2. *Language of the Girnar inscriptions.*

I must now say a few ' last words ' on the language or dialect of the *Gujerat* edict as contrasted with that of the *Cuttack* copy, and the idiom of the pillars. The glossary which I have appended to the translation of each tablet has almost anticipated all I might have reserved for this branch of my discussion. Reading, as Mr. TURNOUR justly observes, through a Sanskritized medium, with a pandit at my elbow, and without a Pāli dictionary (if such a thing exists), my only method of coming at the sense has been by finding corresponding Sanskrit words in every case ;—and so close is the analogy of the two languages, that in most cases little more was necessary than to subjoin an *r* after a *p*, or a *y* after an *s* ; and to change final *o* into the *visarga*.

All doubt as to the pre-existence of the Sanskrit in its purest state being set aside by the simultaneous production of a monument of ASOKA's time, I need not trouble myself to prove the necessity of the existence of a higher and more remote model to account for the marked

* Captain HARKNESS has lately published a very useful volume of the southern alphabets, but none reach up even to our third series in antiquity.

difference between the dialect of *Gujerat* and that of *Cuttack*. In the former we find *bhavati*, *asti*, is; *anusasti*, command; *āpta*, fit; following closely upon the Sanskrit etymology: whereas in the latter we have *hoti*, *athi*, *anusathi*, *atta*, as in the modern Pāli. It would be a process of inversion indeed to derive the former from the latter, while we have the instances of French, Italian and Latin before our eyes.

The dialect of *Girnar*, then, is intermediate between Sanskrit and Pāli, or rather the pillar idiom; for Pāli, so called, agrees in some respects better with one, in some with the other, and in orthography decidedly with neither!

Thus the word *idha* used at *Girnar* for इह *iha*, 'here,' is correctly the Pāli term as may be seen in the long quotation about the erection of a *stupa* in *Ceylon* inserted in last month's journal.

The corresponding word in the eastern dialect is curiously modified to *hida*, a fact I only ascertained by the collation of the two texts, and one which at once opens an important discovery to aid our studies. In several of the *Dhauḷi* inscriptions the expressions *hidalogika pāralokika*, —*hidaloka paraloka*, occur: at *Girnar* (13th tablet) we have also *ilokikā paralokikā cha*:—all these are evidently इहलोकिका पारलोकिकाच 'of this world and of the next world.' Now the opening of the pillar inscription which so much perplexed us has the same elements *hidata pālate*—इह पर or इहतेपारतः here and hereafter, a sense which at once renders the passage intelligible. The same may be said of *hidata kaye pālatakoye* in the north compartment.

The eastern dialect is remarkable for this species of cockneyism which, as far as I know, has no parallel in any of the grammatical Prākṛits: thus the *h* is inserted before *evam* (*hevam*), *idam* and some other words beginning with vowels.

On the other hand (but this is also a cockneyism) the semivowel *y* is cut off in many words such as *athā*, *adā*, *ata*, *am* which are correctly spelt at *Girnar*,—*yathā*, *yadā*, *yata* (S. *yatra*) and *yam*. In these instances the pillar language is remotest from the Sanskrit. There is a singular exception however in the feminine pronoun *iyam* (S. इयं) which is preserved throughout at *Dhauḷi* and on the pillars; whereas at *Girnar*, *ayam* is made both masculine and feminine, as in modern (or rather written) Pāli.

There cannot be a better test of the gradual change of language than the word *prati*, a prefix in Sanskrit extensively used, implying *relation*, *direction* or *return*. In the Pāli of *Girnar* this is merely altered to *pati*

𑀧𑀸𑀓 by omission of the *r*. In the language of the pillars the same preposition is always written *pati*, 𑀧𑀸𑀓 with the cerebral *ṭ*. The orthogra-

phy varies in the written Páli of books, being in Ceylonese *paṭi*, in Burmese *pati*; while in Prákrit, the rules of which generally change the hard to the soft consonants, *t* to *d*, *ṭ* to *ḍ*, the word is written पडि *paḍi* as पडिहाइकुदि for प्रतिष्ठास्यति, &c. and perhaps we may recognize a final change into *par* in the modern *Hindi*, for instance in परोस *paros* from प्रतिवेश *prativesa* vicinity, and other words.

Substantives suffer modifications not so great in extent, but equally remarkable, and significant of gradual corruption.

The word man may serve as an example: Sans. मनुष्यः *manushyas*; at Girnar, *manuso*; at Dhauli and on the pillars, *munise*; Páli *manusso*; Prákrit—? Bhákha, *mánus*. Again the Sanskrit, पुरुषः *puru-shas*, is made at Girnar, *puruso* (?); at Dhauli, *pulise*; Páli, *puriso*, or *poso*; Prákrit, *puriso*. In modern dialects it is only used as a Sanskrit word.

Of the changes undergone by the verbs a good example may be selected in the substantive verb *bhu*, *bhavati*, be; which is found unimpaired in several instances at *Girnar*, though never so on the pillars;—*hoti*, the Páli form, sometimes takes its place in the *Girnar* tablets,—always on the pillars. The *Prákrit* changes this to *hodi*, होदि; whence it is further softened to हइ *hai* and है *hæ* in the modern dialects.

अस्ति *asti* and नास्ति *nāsti* (Sanskrit अस्ति and नास्ति) are also retained in the original form at *Girnar*; at *Dhauli* they became *athi* and *nāthi*; whereas in Páli they are converted into *atthi* and *nāṭthi*. The future passive participle terminates as the Sanskrit in तव्य, *tavya*, at *Girnar*, and *taviya* at *Dhauli*; while Páli makes it *tabba*; Prákrit *dubba*; and the form is altogether lost in the modern *bhāshas*. This gradual transition is well marked in the verb *kri*; do:—Sans. *karṭṭavyam*; Gir. *katavyam*; Cut. *kaṭaviyam*; Pál. *katavvam*; Prák. *kādabbam*.

In writing many Sanskrit words in which the *sth*, or *st*, dental, or cerebral, are required, a curious rule is adopted at *Girnar* of representing them by a cerebral *ṣ* with the *s* subjoined, as तिष्ठेयात् *tistṣeyā* for तिष्ठेयात्,

may remain; अनुसस्ति *anusastṣi* for अनुसस्ति—अधिस्ताना *adhistṣāna* for अधिस्तान. In all these the lowermost consonant is pronounced first.

Another similar anomaly is remarked in the mode of writing *vy* in व्यपति *vyápatá* (S. व्याप्ता) + कर्तव्य *katavyam* (कर्त्तव्य), &c. the *v* being placed below the *y*, whereas on the pillars (where the double consonant is employed at all) it is correctly written व्य *vy*. The word *bāmhona*, बाह्मण, is written with the *h* below बाह्मण; it may therefore on the above prin-

ciple be read with the *h* first, *báhmana*, as nearer to the Sanskrit. At *Dhault* this word is invariably written *bábhana*. In modern Páli it is written *bráhmano* with the dental *n*.

In the inflexion of the seventh case we have at *Girnar* often *ḥ mhi* (or *hmi*); at *Dhault* *ḥ msi* or *si*. These correspond of course with the Sanskrit *smiṇ* in *अस्मिन्*, &c. and all forms are allowed in the facile grammar of the written Páli, along with the regular locative in *e*. It is impossible not to recognize the Hindi postposition *meñ* in the *Girnar* form of the locative case.

The conjunctive *ḥ va* seems to be used for 'and' as frequently as *vá* for 'or.' It is the Persian conjunction, and is used in written Hindi though seldom in the spoken tongue; *aur* *और* the pandit pointed out in one place written *ḥ āro*, but I doubt the reading.

A great many other instances might be cited to prove that the language of *Girnar* is not precisely either pure Sanskrit, or the pure Páli of books: but as the buddhist volumes of *Ceylon* are acknowledged to be posterior by 450 years to the death of SAKYA, his tenets having been first reduced to writing, in *Ceylon*, about 90 years before Christ, some change may be allowed to have taken place in the mean time, and we may presume that the *Girnar* inscriptions represent the Páli (or vulgar) tongue as it was in the time of ASOKA on the west of India, as the pillars shew it to us as it was pronounced on the east, or in *Magadha* proper. Now it is curious enough that some of the distinguishing traits of the pillar dialect are just such as are pointed out by the grammarians of a later age as constituting the differences between *Magadhí* and *Páli*,—names it must be remembered which are indifferently employed in *Ceylon*, *Ava*, *Siam* and even *China*, to express the sacred language of the Buddhists. Thus, quoting from MM. LASSEN and BURNOUF'S *Essai sur le Páli* p. 156,—“*Ra* devient *la* en *Mágadhí*; *poulise*, *Páli pouriso*. Ce changement a quelque fois lieu en *Prákrit*, jamais en *Páli*”—and again in the next paragraph,—“en *Mágadhí* le nominatif singulier est en *e* (which takes the places of *visarga*) tandis qu'en *Prákrit* et en *Páli* il est terminé en *o*.” The use of *o* in lieu of *e* for the masc. nominative is general, but not universal in the text before us. The conclusion, to which the same savans were led at that early period of their studies, may now require a slight modification:—

“Une comparaison attentive du *Prákrit* et du *Páli* nous a conduit à cette conclusion:

“1. Qu'il existe, entre ces deux dialectes, une ressemblance telle qu'on peut avancer *qu'ils sont presque identiques*;

2. Que le Prâkrit altère plus le Sanskrit que ne le fait le Pâli, et qu'il offre en quelque sorte, le second degré d'alteration, comme le Pâli en est le premier et le plus immédiat.—*Essai sur le Pâli*. 15.

The second position is quite true, and it has been fully developed in a recent work (*Institutiones Prakriticae*) by Professor LASSEN, which should be in the hands of every Indian philologist.

Constat itaque, Pâlicam linguam sacram esse linguam Bâuddharum meridionalium, id est eorum qui versus meridiem ab oris Kalingæ potissimum solventes, religionis Buddhaicæ doctrinam primum in Taprobanen insulam transtulere, indeque in Indiam ultra Gangem transecti late propagaverunt. Ista lingua a Sanscritico fonte eodem prorsus modo derivata est atque Prâkrita præcipua, decurtata vetustioris linguae structura, nullis sive paene nullis adjectis novis inventis; uno tamen, ut ito dicam, gradu antiquior quam scenicus sermo, ceteroquin arctissimo vinculo cum Prâkrita præcipua conjuncta, saepe ab ea omnino non diversa. Cujus rei in caussa nil aliud fuisse potest, quam id, quod haec prius ad literarios usus accommodata fuerit quam illa. Ut dicam, quod sentiam, uno saeculo commode orta esse possunt discrimina, quibus Pâlica a Prâkrita distinguatur. Cohæret autem Pâlica lingua cum emigratione Buddhaicæ doctrinae in terras meridionales; ipsa autem in India sine ullo dubio nata est. Utrum statim ab initio lingua Pâlica usi sint Baudhæ meridiem petentes, necne, questio est satis obscura: verum enimvero, quum initia emigrationis in Taprobanem ante annos ante chr. n. 628-543 vix ponere liceat, eo aevo vetustior vix erit Pâlicæ dialecti accommodatio ad religionem Buddhae docendam; quanto junior sit illo aevo, alii, historiae hujus sectae enuncleandae operam navantes, videant. Prâkritam autem scenicam quadringentisimo ante chr. n. anno vetustiore vix crederem, nec tamen ultra saeculum juniorem; nam in Mricchchakati, dramate ante chr. n. probabiliter scripto, et quidem, si traditioni Indorum fides habenda sit, circa ducentessimum ante chr. n. annum, Prâkriticus sermo iam utitur norma prorsus eadem, atque, in recentioribus fabulis; neque ab illo tempore immutatus est. Scenam autem ipsam si respicis, sciendum est, utrum ea ab initio varios admiserit dialectos, necne, antequam ejus aetatem cum aetate dialectorum scenicarum conjungas.

LASSEN'S Inst. Ling. Prakriticae. 60.

The position assumed by M. LASSEN, that the Pâli of *Ceylon* was immediately derived from the shores of *Kalinga*, independently of its being matter of history, is supported by the evidence of the records now discovered in that country. Yet it must be confessed that in some respects there is a nearer connection with the dialect of *Gujerât*: and it is not unnatural to suppose that a maritime intercourse also prevailed at a very early period between the western emporia of *Surashtra*, and *Tambapanni*, the island so fruitful in aromatics, which would lead to an intercommunion of those professing the same faith in the two countries.

The vernacular language of India at that period, then, varied in different provinces:—it approached more to the Sanskrit in the northwest; diverged from it in *Magadha* and *Kalinga*:—but it was in both places essentially what is now called *Pâli*, a word supposed to be derived from

ཕྱལ་ འཁོར་ འབྲེལ་ ཆེན་ མི་ མདོར་ བཟུལ་ བཞི་ པ་ ལས་ འདེ་ བཞིན་ གསེགས་
 པ་ མདོན་ པར་ རྩོགས་ པར་ ལངས་ རྩས་ པ་ འཕགས་ པའི་ ཡུལ་ འདིར་ བཅོམ་
 རྒན་ འདས་ ཡོངས་ ལུ་ རྩ་ ངན་ ལས་ འདས་ པར་ རྩུལ་ པ་ ཀ་ རྩུད་ པར་ རྩེད་
 པ་ ཕྱོད་ ག་ གིས་ གེག་ པ་ གཟུམ་ གྲེགས་ བམ་ ལ་ བྱིས་ ཏེ་ ཏེ་ རྩལ་ གསེགས་

VIII.—*Proceedings of the Asiatic Society.**Wednesday Evening, the 4th April, 1838.*

The Right Reverend the LORD BISHOP of Calcutta, in the chair.

Dr. H. H. SPRY, proposed at the last meeting, was elected by ballot a member of the Society.

Dr. F. HUFFNAGLE, was proposed by Mr. G. A. PRINSEP, seconded by the Secretary.

Correspondence.

Read letters from EDWARD R. DANIELL, Esq. Secretary to the Royal Institution, EDWARD BALFOUR, Esq. Secretary of the Royal College of Surgeons, and CHARLES KONIG, Esq. Secretary of the Royal Society of London, acknowledging the receipt of the last volume of the *Researches and Journal*.

Read a letter from H. DOUGLAS, Esq. (senior member of the Civil Service, lately retired,) dated *Patna*, 14th March, 1838, acknowledging the receipt of a copy of the *Khazánatul Ilm*, presented to him by the Society in consequence of the great assistance afforded by him to its compiler KHANJI' as mentioned with gratitude in his preface.

Mr. D. states that the relatives of the author are poor and uneducated, and a presentation copy would be thrown away on them.

Read a letter from JULES DESJARDINS, Esq. Secretary to the Natural History Society of the Mauritius, acknowledging receipt of the Oriental publications of the Society, and forwarding for presentation to the Society, continuation of the Meteorological observations kept by himself from June to September, 1837.

In reply to the Society's circular regarding tidal observations, M. DESJARDINS states that Mr. LLOYD, Chief Engineer on the island, had organized a complete series which had been sent direct to Professor WHEWELL.

Also a letter from M. ROUY DE ROCHELLE, President of the Geographical Society of Paris, forwarding the 7th volume of their bulletin, and noticing the receipt by mistake of duplicate of the *Researches*.

Also, a letter of thanks from Professor BORP for the *Mahabhárata*, &c. and presenting his own works in return. (See library.)

Museum.

Colonel McLEOD had completed the erection of the pillar upon which the Bust of WILSON was set at the entrance into the oriental end of the Library: he received the thanks of the Society for the superior manner in which it was executed.

Library.

The following books were presented by the authors:

Vergleichende Grammatik—or Comparative Grammar of the Sanscrit, Zend, Greek, Latin, Lithuanian, Gothic, and German languages, three parts—by Professor FRANZ BORP.

Text and Latin translation of the episode of *Nalus* from the *Mahabhárata*, second part—by the same.

Notice du Traité Persán sur les vertus de Huçain waiz Koschiff, intitulé, Akhlá-qui Muhçini, de M. GARCIN DE TASSY.

Map of the Post roads in India—presented by Captain Taylor.

The following by Societies and editors.

Bulletin de la Société de Géographie. Vol. VII.—by the Geog. Soc. of Paris.

Transactions of the Medical and Physical Society of Bombay—by the Society through C. MOREHEAD, Esq. Secretary.

Quarterly Journal of the Madras Literary Society—by Dr. Cole, Secretary and Editor.

The Chinese Repository, Vols. II, III, IV, V, and part of VI—presented by R. Inglis, Esq.

The following works were presented by Captain T. S. BURT, Engineers.

Burt's Observations on Nature, 1 vol. edited by his son.

Burt's Christianity, a poem with notes, ditto.

Views of Ancient and Modern Hindu and Musalman Architecture—by Capt. Burt.

The following were received from the booksellers.

Lardner's Cabinet Cyclopædia—England, vol. 7.

Horton's Flora Americana, 3 vols. (purchased.)

The usual Meteorological Journal—by the Surveyor General.

Oriental Publications.

MESSRS. THACKER and Co. submitted a file of the *Alif Leila* to page 504 completed: 100 pages more were in the press. The translation of the first 50 nights was expected daily and would be printed without loss of time.

Literary and Antiquities.

The Rev. W. TAYLOR, forwarded a duplicate of the continuation of his Report to the Madras Literary Society on his examination of the MACKENZIE manuscripts.

General ALLARD presented facsimiles of two ancient inscriptions from Kashmir.

Extract of a letter from Captain BURNES, was read, announcing the dispatch of the *Cabul* marble slab noticed at a former meeting.

Rāja VENKATA ASWA RAO, presented copy of an inscription from a temple at Warangal in the Hyderabad district, in the Telinga character, with a transcript in Devanāgarī by himself.

Mr. E. BLUNDELL, Commissioner of the Tenasserim Provinces, in reply to the Society's request, forwarded a translation and restored copy of the inscription on the Great Arracan bell, a description of which (by Captain WROUGHTON) was published in the December No. of the Journal.

The Secretary read continuation of his translation of the religious edicts of ASOKA from Gujarat and Cuttack.

[Printed in the present number.]

He also announced the discovery that a second inscription from Junagarh in Gujarat, in SANSKRIT, related to the circumstance of the repair of a bridge in the time of CHARDRAGUPTA, and by the very ASOKA his grandson whose Pāli edicts had just been described.

[This notice which is of great interest in the study of Indian antiquities, will be published in our next number.]

Captain T. S. BURT, Engineers, announced in a letter to the Secretary, that he had discovered three new pillars, two of them with inscriptions in the No. 2 character in Malwa, of which he had taken facsimiles for transmission to the Society.

Captain BURT writes also:—

"I paid a visit to the Sanchi monument and copied the third ancient inscription referred to by Captain SMITH as being illegible, and of which he did not for that reason take an impression. I am very happy in being able to confirm your remarks as to the shorter inscriptions in the old character at Sanchi, which from their all being written upon different huge blocks of stone (forming component parts of the terrace or outer wall of the tope) satisfactorily account for the word *dānam*, because each huge stone was the *dānam* or gift of the individual concerned.

"I have taken facsimiles of about a hundred inscriptions or more since I left Sehore or Bhilsa on the 13th ultimo, but the greater part are from *salti* monuments, and not worth sending. One however is 5 feet by 4 a splendid facsimile 1120 odd of the samvat."

Mr. M. KITTOE, having returned from a trip to explore the site of some coal beds in Cuttack, on which he had been deputed by government at the recommendation of the Coal Committee, laid before the meeting an account of the antiquarian researches he had collaterally been enabled to make at various places in his route.

[We shall hereafter give a sketch of the tour and need not therefore say more, than that although the heat was so great as almost to paralyze out-of-door exertions still the zealous explorer left nothing unseen or undone on his route:—he re-examined the inscriptions at Dhauri mounted on a frail bambu scaffold,—he copied a Bobanestwar inscription: he drew the whole of the sculpture on the caves at Udayagiri,—a jaya stambha on a plain at some distance,—the Jājipur images,—and

same of the black pagoda sculpture; this temple is now under spoliation by the *Khurda* rajá, and Mr. KITTON suggested that the Society should secure some of the better samples of its rich carving for their museum, rather than allow them to be fractured and thrown away. His visit to the coal district was attended with success and will form the subject of a separate report. The drawings had not then arrived, but we have since been gratified with a sight of them, and have remarked decided traces of the Greek soldier's dress in the battle scenes, as we noticed in the *Bhilsa* tope relievos.]

Physical.

A further note on the geography of *Cochin China* was submitted by the Bishop of *Isauropolis*.

A letter from Captain BURNES gave an account of the *Reg ruwan* or moving sand near *Cubul*,—with a drawing of the hill by Mr. GONSALVES.

Captain CAUTLEY communicated the journal of a trip to the *Niti* pass of the *Himálayas*, by H. BATTEN, Esq. C. S.

A drawing by Mr. G. TEBBS, of a large fossil head (elephant) lately extracted from the rock near *Narsinhpur*, was sent by Dr. SPILSBURY.

Specimens of coal from a new site near the *Damoda* discovered by Lieut. J. HARRYNGTON, were presented by Mr. MANGL ES.

[Extract of a letter to Captain WILKINSON.]

"I send you a specimen of coal brought from *pergana Jherria*, in which *pergana* that mineral abounds. This was taken from the surface of the ground about a quarter of a mile east of the town of *Jherria*, and five or six miles from the banks of the *Damoda* river. Of the depth or extent of the bed I cannot speak precisely, but it lies near the surface, is I believe of considerable thickness, and with perhaps occasional breaks or flows extends for many miles. I have found it within half a mile of the *Damoda* and in some places it probably reaches the banks.

"The quality of the coal seems to be good; the specimen I send, and all that I have procured, have been exposed to the weather for ages, and one I should suppose inferior to what might be had at greater depths. It burns freely in a small stove and reduces completely into ashes, so that it is free from slate or other incombustible substance.

"To enable you to trace the position of this valuable bed of coal I may mention that it lies in about Lat. 23° 43' N. and Long. 86° 30' E. being about 30 miles west from the *Chinakuri Colliery*, and on the northern or left bank of the *Damoda*."

Rurulia,
6th March, 1838. }

(Signed) J. HARRYNGTON.

[For an analysis of the specimen, see the table published this month.]

Some specimens of the fossil bones discovered by Mr. POPE, at the *Cape of Good Hope*, supposed to be in continuation of the series presented by him on 7th September, 1836, had arrived addressed to Mr. R. TROTTER, who being absent, the Secretary had claimed them for the Society. No description had been received.

Mr. W. CRACROFT, presented 2 water snakes in spirits, from *Ganga Sagar*, 1 crab, and the fin of a *bhekti* fish with a sucking insect attached. Also the skeleton of the head of a kangaroo rat.

Lieutenant FELL, I. N., presented 3 fish and a few insects.

Mr. NICOLAS, a bird, the Austrian *Patrincole* mounted.

When the ordinary business was concluded Mr. J. W. GRANT exhibited to the members present, with the aid of a very beautiful lucernal microscope belonging to himself, some of the fossil infusoria lately the subject of so much discussion at home. Living infusoria of nearly the same species had frequently been compared therewith, but they were not now in season; other kinds were plentifully exhibited, as also the ashes of the various coals of *Burdwan* and *Assam*, in which Mr. GRANT pointed out a marked difference, so much so that he could tell to which field any specimen belonged from the appearance of its ashes under the microscope.

Mr. Grant received the thanks of the Members present, for the gratification afforded them.



Meteorological Register, kept at the Assay Office, Calcutta, for the Month of March, 1838.

Day of the Month.	Observations at 10 A. M.						Calculated Humidity.			Observations at 4 P. M.						Calculated Humidity.			Temperature of water.		Rain.		Wind.		Weather.			
	Barometer at 32°.	New Stand. Barometer.	Thermometer in air.	Depression of wet-bulb.	Do. by Lee's Hygro.	Dew-point.	Hair Hygrometer.	Centesimal tension of vapour by wet-bulb.	Do. by hair Hygrom.	Ditto by dew-point.	New Stand. Barometer at 32°.	Old Stand. Barometer at 32°.	Thermometer in air.	Depression of wet-bulb.	Do. by Lee's Hygro.	Dew-point.	Hair Hygrometer.	Centesimal tension of vapour by wet-bulb.	Do. by hair Hygrom.	Ditto by dew-point.	River.	Well.	On the ground.	At elevation of 45 feet.	10 A. M.	4 P. M.	Forenoon.	Afternoon.
1	29.021	29.880	79.9	8.8	9.8	62.0	83	60	50	56	29.793	29.745	91.0	32.7	24.3	50.0	49	24	21	26	77.2	76.4			o. w.	S. W.	fine.	fine dry.
2	29.009	29.874	79.3	8.3	9.4	63.7	81	62	61	60	29.778	29.713	91.7	33.4	24.7	48.0	49	23	21	25	77.1	76.3			o. w.	o. W.	clear.	do
3	28.989	29.859	79.1	8.1	12.1	62.3	78	62	56	54	29.712	29.648	90.4	19.0	19.7	54.3	64	32	36	31	76.6	77.6			S. W.	S. W.	cloudy.	cldy. all day.
4	28.980	29.850	79.1	8.0	9.0	64.0	81	57	61	57	29.691	29.634	85.7	11.9	10.4	65.0	78	53	56	54					o. w.	o. w.	clear.	clear
5	28.988	29.858	79.2	8.2	10.0	63.4	80	45	44	58	29.713	29.663	89.5	20.1	20.7	49.0	57	27	30	27	76.9	76.9			n. w.	s. W.	cum. cir.	do
6	28.986	29.856	80.0	10.4	5.6	62.8	92	55	42	56	29.759	29.708	90.1	19.5	20.4	49.5	57	55	56	44					s. W.	s. W.	cumuli.	cumuli.
7	28.985	29.854	81.4	6.4	6.8	68.6	89	71	76	36	29.757	29.706	89.5	11.2	11.3	61.5	78	35	31	28	76.8	76.8			S. W.	S. w.	do	nimbi thrg.
8	28.993	29.864	80.9	7.5	8.5	64.0	84	67	66	38	29.776	29.726	89.7	18.2	18.0	51.5	60	31	27	26					n. w.	n. e.	clear	cir. cum.
9	28.919	28.788	81.2	8.4	9.4	64.5	86	63	61	38	29.814	29.764	91.0	19.8	19.2	50.2	56	31	27	25					o. n	W.	cum.	clear
10	30.010	29.878	79.5	9.5	9.5	60.0	80	57	50	35	29.815	29.765	77.9	9.7	9.5	58.0	79	56	57	53					n. W.	W.	cloudy.	cloudy.
11	29.990	29.857	79.3	8.9	9.0	58.0	80	56	50	39	29.804	29.754	83.3	16.6	14.5	51.0	64	33	36	55					W.	W.	clear	clear
12	29.957	29.824	79.5	10.1	9.9	56.6	76	54	52	34	29.800	29.750	82.6	16.1	16.2	47.0	60	35	31	30					o. n.	n. o.	do	clear.
13	29.977	29.844	79.7	12.0	12.5	53.0	76	47	42	41	29.783	29.733	91.4	20.4	21.8	50.0	50	29	22	26					o. s.	N.	clear fog.	do dry.
14	29.921	29.794	79.4	7.0	9.0	64.5	82	65	63	61	29.742	29.692	94.0	21.6	23.0	51.5	44	28	25	29					o. s.	S. W.	do	do
15	29.900	29.835	82.0	10.9	12.2	60.0	77	64	54	40	29.732	29.682	92.8	22.0	24.5	42.0	50	27	22	19					o. n	S. N.	do	do
16	29.847	29.836	83.6	14.0	15.0	64.5	70	43	44	54	29.732	29.682	95.0	22.0	24.5	42.0	53	28	24	22					o. s	W.	do	do
17	29.863	29.811	85.6	14.1	17.0	64.5	68	45	41	38	29.737	29.687	91.5	22.8	24.5	42.0	50	24	22	20					o.	W.	clear mist.	clear.
18	28.830	28.784	85.0	10.2	11.5	62.0	79	58	57	48	29.715	29.665	94.5	22.7	23.5	46.0	50	27	22	20					S. W.	S. W.	hazy.	haz.
19	28.812	28.668	84.5	10.5	11.3	63.2	79	57	57	30	29.715	29.665	94.5	22.7	23.5	46.0	50	27	22	20					S. E.	S.	do	do
20	28.818	28.704	84.1	8.1	8.9	70.0	85	68	60	60	29.709	29.659	92.2	15.7	17.0	63.0	68	44	41	40					S. e.	S. W.	fine.	cir. cum.
21	28.857	28.699	80.4	8.9	10.2	65.5	82	64	63	51	29.733	29.683	95.0	22.0	24.5	42.0	50	35	35	23					S. o.	S. w.	cloudy	fresh briz. cld.
22	28.802	28.577	84.1	7.2	8.5	64.0	83	70	65	53	29.736	29.686	89.1	9.3	10.4	63.4	82	64	63	44					s. o.	S. o.	do	dry.
23	28.868	28.840	82.5	7.5	8.4	63.2	83	67	65	46	29.736	29.686	89.1	9.3	10.4	63.4	82	62	63	48					S. s.	S.	do	cumuli.
24	28.836	28.602	84.0	6.2	7.0	73.0	87	73	72	46	29.736	29.686	90.4	13.3	13.3	66.7	75	32	23	24					N. o.	W.	clear.	clear.
25	28.922	28.840	83.2	9.9	10.4	62.0	75	50	51	50	29.765	29.715	90.4	13.3	13.3	66.7	75	33	25	23					S. W.	S. w.	do	do
26	28.986	28.874	84.3	11.9	13.0	57.2	72	51	46	41	29.735	29.685	90.4	13.3	13.3	66.7	75	59	54	43					S. W.	S. w.	do	do
27	28.816	28.689	84.3	5.1	5.4	65.6	89	78	76	62	29.765	29.715	90.4	13.3	13.3	66.7	75	60	57	40					S. W.	S. W.	do	do
28	28.789	28.468	85.7	6.9	7.5	70.5	85	71	63	62	29.694	29.644	91.2	10.5	11.2	63.0	79	60	57	40					S.	W.	do	do
29	28.920	28.802	81.7	6.4	7.1	68.6	83	71	65	56	29.706	29.656	85.1	6.5	6.9	71.0	85	72	68	64					s. E.	W.	cldy. haze.	cir. driz. th.
30	28.934	28.666	76.8	3.9	5.0	65.0	90	81	73	70	29.830	29.780	82.6	8.2	8.0	67.0	81	65	61	60					S. e.	S. e.	sim. 4 a.m.	do cool.
31	28.920	28.694	80.0	5.3	6.6	66.6	86	75	70	64	29.765	29.715	86.9	13.3	11.7	64.0	71	50	45	46					o. W.	S. o.	clear cool.	clear.
Mean	29.043	29.894	79.4	8.4	9.4	63.4	77	61	61	55	29.757	29.707	90.5	16.5	16.9	54.8	64	40	38	35					day breeze.	one storm.		



JOURNAL

OF

THE ASIATIC SOCIETY

No. 76.—April, 1838.

I.—*Restoration and Translation of the Inscription on the large Arracan Bell now at Nadrohighát, Zillah Alligarh, described by Captain WROUGHTON in the Journal of the Asiatic Society, December 1837.*

At the suggestion of Colonel BURNEY the larger of the two facsimiles prepared by Captain WROUGHTON, which appeared to his pandit to be in the Talain dialect, was sent to Mr. E. BLUNDELL, Commissioner at Maulmain, with a request that he would endeavour to get it read and translated by the natives of that place.

By the hands of Dr. RICHARDSON it was returned to us with a fair transcript of the whole, which we hasten to set up with the aid of the new fount of Burman type cast for the publication of Mr. LANE's Dictionary. The two sides of the bell contain separate copies of the same text, one in *Burmese* and the other in *Talain*, both with an admixture of Páli at the commencement and termination. On setting up the Talain, we found so many characters to be wanting that we were obliged to break up the form; but we have had the whole written in lithography rather than omit it, thinking it might prove interesting to students of these dialects to have the corresponding texts face to face.

For the translation, Mr. BLUNDELL informs us, we are indebted to a young military friend of his who has made some progress in studying the language. The concluding portion being in Páli was translated by Dr. RICHARDSON himself on his way to *Calcutta*. To all these friends, as well as to their native assistants who must have had no easy task in deciphering the facsimile notwithstanding the care and minuteness with which it was executed, we beg to return our best thanks.

It will be seen that the inscription contains a scrap of history of no small interest in its way.



It seems that about the beginning of the seventeenth century the king of *Pegu* being invaded by his neighbour the Burmese sovereign of *Pagahm* (*Pagan* the ancient capital described by Colonel BURNES in the J. A. S. Vol. IV. p. 400) called in the aid of his ally the king of *Martaban*, whom, after gaining his object, he sought treacherously to destroy:—but he became justly the victim of his own stratagem, and was defeated by the *Martaban* king who forthwith possessed himself of *Threethenthawuddee**, (*Pegu?*) having the four cognomens of *Yadzatannee*, *Bydzatannee*, *Yattatancee* and *Yougatannee*. He is then represented to have endeavoured to extirpate some heresy that offended the sect of Buddhists he brought with him, by scattering the obnoxious articles: and the final act which the inscription records is its own construction for the worthy object of sounding an alarm that should reach the royal ear when any injustice was crying aloud in the streets; this was in the year 984 which if it be reckoned in the vulgar Burmese era will correspond with A. D. 1622.

We cannot help regretting that such a monument should have been removed from the place where it had a name, a history, and an object. to be lost in an obscure Hindu temple in the northwest of India! We know that such sacrilege, for by no other name can we call the plunder of a place of worship, was prohibited; but the preventive checks must have been small indeed that could take no cognizance of the removal of a mass weighing 31 hundred weight! We should like to see the bell claimed by our civil commissioner and restored by our government, as an act more likely than any other to ingratiate us with the people of *Arracan*. We would even compensate in cash the *Resáladár*, if his conscience would not readily concede the bell from his temple when told that it belonged to the hated and impure followers of Buddha!

With RATNA PAULA'S aid we have given the correct *Páli* orthography of many words wrongly spelt on the Bell.—ED.

Burma Version.

ဘတ္တကတ္တ (၁) တက်နှိက်။ ပွင့်တော်မူ သော်ဘုန်တော်
ကြီးသောဘုရားမြတ်စွာကောက္ကသန်။ (၂) ဘုန်တော်ကြီးသော်
ဘုရားမြတ်စွာဂေါနာဂုန် (၃) ဘုန်တော်ကြီး သော်ဘုရား မြတ်
စွာကသာပသာသနာတော် နှင့်တကွ။ ပရိနိဗ္ဗာန်ဝံလွန်တော်မူ
ပြီသည်နောက်။ ဘုန်တော်ကြီးသော်ဘုရားမြတ်စွာမဟာရ (၄)

* *Srihansavati*, possessed of swans, a name generally applied to *Rangoon*. The four epithets are Sanskrit names—*Rájadhání*, *Vidyadhání*, *Ratnadhání* and *Yodhadhání*, the abode of royalty, learning, jewels and warriors.



ဂေါတမပွင့်တော်မူသည်။ ဘုရားမြတ်စွာမဟာရ (၁) ဂေါတမ။ ပရိနိဗ္ဗာန်စံလွန်တော်မူပြီး သည်နောက်။ သာသနာတော် ၁၂၇၅ နှစ်လွန်သည်။ သာသနာတော် ၁၉၁၃ ခုနှစ်တွင်။ သမ္ဘာ (၂) နှင့်ပြည့်စုံသည်မင်းဖြစ်တော်မူသည်။ ထိုးမင်သည် မဟာတေဇဘုန်တန်ခိုး နှင့်လည်ပြည့်စုံသည်။ အထာရသ (၃) အတပ်ပညာလည်မသင်မကြား မိမိအလိုတပ်ခြင်။ ညာဏ်ပတ်တန်။ ဥစ္စာနှင့်ပြည့်စုံခြင်း။ သင့်သည်မသင့်သည်ကို လည်ဆင်ချင်နှိုင်းရှည်ခြင်း။ သတ္တိဗလနှင့်ပြည့်စုံခြင်း။ အခြံအရန်ဆွေးမျိုးတို့နှင့်ပြည့်စုံခြင်း။ တိုင်သူပြည်သားတို့ဆင်ရဲဒုက္ခကိုကယ်ဆယ်ခြင်းဖြင့်မေတ္တာပွားများ၍မစခြင်း။ အမတ်ကြီးရပါ။ တို့ကိုလည်အခွင့်ပေးချင်။ ဒသဗျညာအမတ်ကိုလည်အခွင့်ပေး ခြင်း။ မလတရတရားဆိုး ရာမှာသူတထူတို့ကိုချစ်ခြင်း။ မေတ္တာပွားများ။ လျက်တူတန်စွန်ကျယ်ခြင်း။ တိုင်သူပြည်သားတို့ကိုအကျိုးစီးပွား များစေခြင်း။ ဒေါဗျညာဆိုးရာမှာမင်းအေကရာဇ် (၄) အဘိတ်သိတ်သွန်ခြင်း။ မြို့၏အာဏာပါးဆိုးရာမှာဒသဗလ။ ညာဏဗလ။ ကာယဗလ။ တေဇဗလ။ သုတဗလ။ ထိုးဗလပါးဆိုးရာနှိုက်။ ဒသဗလသည်ရွှေငွေကျော်သံဘတ္တများ နှင့်ပြည့်စုံပေါများခြင်း။ ညာဏဗလဆိုရာနှိုက်။ မင်း အေကရာဇ်ဘုန်အာဏာပညာတက် မြန်ပြည့်စုံခြင်း။ ကာယဗလဆိုးရာနှိုက်အထာရသ (၅) ဂပါသောအတပ်နှင့်ပြည့်စုံသည်သူရဲသူခက်တို့ပေါများခြင်း။ တေဇဗလဆိုးရာနှိုက်အမတ်စစ်သူကြီး တို့ညာဏပညာနှင့်ပြည့်စုံခြင်း။ သုတဗလဆိုးရာနှိုက်။ မြို့ရွာနယ်အပိုင်အခြာသိကျယ်သည်ညာ

(၁) ဘဒ္ဒကပ္ပ (၂) ကကုသန္ဒ (၃) ကောနာဂမန (၄) မဟာဝီရ (၅) မဟာဝီရ (၆) သဒ္ဓါ (၇) အဒ္ဓါရသ (၈) ကေရာဇ် (၉) အဒ္ဓါရသ



ကပ်ပညာနှင့်ရှိသူပေါ်များခြင်း။ ညီးတော်မျှညာယောကိမြို့က
 နှင်ထုတ်သည်အကြောင်မှာ မင်းတို့၏ကြွင့်ရာဝတ်နှင့်မညီ။
 ညီးတော်ပြည်မင်း ရိသဒ္ဓကမ္ဘာကိုနှိပ်ဖြင့်ကြ။ လွန်စွာ။ ပြော်
 ဆိုး၏။ မိမိသည်။ အမတ်စစ်သူကြီး။ တို့ကိုအရိုအသေသင်္ဂါ
 ရဝမပြုသောကြောင့်။ ဒုသိဒ္ဓတ် ⁽¹⁰⁾ စစ်သူကြီးသည်။ ဗိုလ်
 ခြေလူအများတို့ကိုလှည့်ဖြာ၍။ ပြည်မြို့စာတံဝင်စာသွားလေ
 ၏။ မင်း အေကရာဇ် ⁽¹¹⁾ သည်။ မည်သည်မှာရှိသည်။ ညီး
 တော်အနိန်သည်မည်သည်မှာရှိသည်။ ညီးတော်ယံစေသိ
 ကသည်မည်သည်မှာရှိသည်။ ဝေါ။ လ တတ်တလဝိ။ လဘာ။
 လေရွာဒဿမောနုတထာစာသည် မတ်အဒစ မင်မှာကောလိ
 ယကိုစာသည်။ ထိုးသူ ၂ယောံမှာလက်ဝဲအ မတ်ဖြစ်သည်။
 ထိုးသူ ၂ယောံတို့သည်မြို့နုရွာသား တို့ကို ညွှင်ပန်နှိပ်စက်
 ကြေငွေကိုယူ၍ မစာတိုက်သောကြောင့်ဆင်ရဲပြန် ခြေသ
 ည်။ ။ ကေတုဝတိ ⁽¹²⁾ ပုကံမြို့က။ စစ်အင်္ဂလေပါးနှင့်တ
 ကွ။ ဒိဒိနုက္ခတ်နေကောင်ရက်သာအခါနှိုက်။ ဗိုလ်ချေဆင်
 မြင်နှင့်တန်ခူ လမြည်ကောင်ရက်ဒင်ဂါနေကေတုဝတိ ⁽¹³⁾
 ပုကံမြို့ကချီထွက်လာ၍ ၁၅ရက်နှင့်ရောံလာသည်။ သိရိဟံ
 သာဝတိမြို့ မှာတပ်စခန်ချနေရာ။ ထိုးအခါသိရိဟံသာဝတိမ
 င်းအေကရာဇ်လည်။ စတုရင်ဂစစ်ဒင်ဂါလေပါကို ပြင်စင်ဖြို
 လျှင်။ ချီလာသည်စစ်ကိုဆီးကျိုး၍တိုက်ရာ စစ်ညှိသောံကြော
 င်။ မုတ္တမ။ မင်းကိုစစ်ကူမည်အကြောင်စာပေလှိုင်။ မုတ္တမ။ မ
 င်းကကြာ၍ဗိုလ်ချေး အများဆင်တပ်မြင်တပ်။ အမတ်စစ်သူ
 ကြီးသူရဲသူခက်အလွန်အရင်တညီး တညွတ်တချက်တည်။ မု
 တ္တမကချီလာ၍။ သိရိဟံသာဝတိမြို့ကိုရောံ၏။ မုတ္တမ။ မင်းလ

⁽¹⁰⁾ တုသိဒ္ဓတ္တ ⁽¹¹⁾ ကေရာဇ် ⁽¹²⁾ ကေတုမတိ ⁽¹³⁾ ကေ
 တုမတိ ⁽¹⁴⁾ ရောဝန ⁽¹⁵⁾ ရောဝန ⁽¹⁶⁾ ကေရာ ⁽¹⁷⁾ ဇရောဝန



ည်အေရာဝံ (14) ဆင်ကိုစီးဖြိုလျှင်။ ဗိုလ်ချေဆင်။ မြင်။ သူရဲ။ သူခက်အလုန်အရင်နှင့်ခုခံကူညီတိုက်ရာ။ ကေတုဝတိယကံ မြို့ကစစ်သည်တို့မရပ်မခံနိုင်၍။ ဗိုလ်ချေတပ်အလုန်အရင်နှင့်ဆုပ်ခွာသွားကြလေ၏။

မုတ္တမမင်းမူမတ်။ စစ်သူကြီးရဲ မက်တို့နှင့်ကူညီလာသည်ကို။ သိရိဟံသာဝတီမင်းကမုတ္တမ။ မင်းကိုသတ်မည်ကျန်၍ဗိုလ်ချေနှင့်တကွ။ မင်းကြီးလည်း။ ဥပေါသထဆင်ကိုစီးဖြိုလျှင်ချီထွက်လာ၏။ မုတ္တမ။ မင်္ဂလာချီတွက်လာသည်စစ်ကိုမြင်လျှင်။ သုရန်သူကိုအောဗိုလ်ချေနှင့်ကူညီတိုက်ဖျက်သည်။ အောသတ်မည်ကျန်ပြန်သည်။ ကျေဇူကိုမသိ။ သည်တိုင်ပြည်မှာငါသည်သာသနာဒါယကာ ဖြစ်ရမည်မှန်လျှင်။ ယခုချီလာသည်ရန်သူလေမျက်နှာ။ ရှစ်မျက်နှား တို့ကိုအော။ ချိုးပဲ့နိုင်ပါစေသာသစ္စာဒိတ်ထန်ပြုဖြိုလျှင်။ မုတ္တမ။ မင်္ဂလာသည်အေရာဝံ (15) ဆင်တက်သို့တက်၍။ ဗိုလ်ချေဆင်လုန်။ မြင်ရင်နှင့်တကွပြုမြင်သည်မင်းအေကရာဇ် (16) ၊ ပါးဆုန်း၍စစ်ထိုးကြရာ သိရိဟံသာဝတီမင်း စီသည်ဥပေါသထဆင်ကိုတိုး မိ၍အစွဲကျိုး လျှင်အေရာဝံ (17) ဆင်ကိုပြန်တွန်၍မခုခံဝပ်သောကြောင့်ဗိုလ်ချေဆင်လုန်မြင်ရင်နှင့်တကွပျက်စီးလေ၏။ ။

မုတ္တမမင်းလည်အောင်စည်ကိုတီးဖြိုလျှင်။ ထာဏီ (18) ၎င်းပြည့်ရန်သည်။ သိရိဟံသာဝတီမြို့ကိုသိပ်ယူရလေ၏။ ထာဏီ (19) ၎င်း။ ဆိုရာမှာရာဇာထာဏီ။ (20) ဗိဇ္ဇာထာဏီ။ (21) ရတ္တထာဏီ (22) ။ ယောဂထာဏီ (23) ။ ထိုးထာဏီ (24) ၎င်း။ ရာဇာထာဏီ (25) ဆိုရာမှာမြတ်သော်မင်းမျိုးဘုန်တန်ခိုးနှင့်ပြည့်ရန်ဖြစ်။ ဗိဇ္ဇာထာဏီ (26) ဆိုရာမှာ အတပ်ပညာနှင့်ပြည့်စုံသူ

(18) ဓာဏီ (19) ဓာဏီ (20) ဓာဏီ (21) ဗိဇ္ဇာဓာဏီ (22) ရတနာဓာဏီ (23) ဓာဏီ (24) ဓာဏီ (25) ရာဇဓာဏီ (26) ဗိဇ္ဇာဓာဏီ



ပေါများခြင်း။ ရတ္တထာဏီ⁽²⁷⁾ ဆိုရာမှာ။ ရတနာပါပေါများ
ပြည့်စုံခြင်း။ ယောဂထာဏီ⁽²⁸⁾ ဆိုးရာမှာ အသက်ကိုစွန့်သ
ည်သူရဲသူခက်ပေါများခြင်း။ တာဏီ⁽²⁹⁾ ရပါးနှင့်ပြည့်စုံသ
ည်သိရိဟံသာဝတီမြို့ ကိုသိပ်ယူရ၍မကောင်သော်သူတို့ကို
သုတ်သင်ရှင်လင်မြီလျှင် ဖြစ်ဝတ်စွာစိုးဥပတော်မူလေ၏။ ။
မူမတ်သေဏာပတိ။ စစ်သူကြီးတို့က။ သည်မြို့မှာမတော်မတ
ရာရှိသည်တရားပစ္စည်း။ တရားပစ္စည်း။ သင်ဗာပစ္စည်းများနှင့်
စပ်ဆိုင်သည်။ ထိုးသံတွေးခဲပမာရှိသောမကောင်သော်ဥစ္စာ
ပစ္စည်းများကိုအဝေးမှာစွန့်ပြစ်ရအောင်မင်းအကရာ၏⁽³⁰⁾
ထံတင်ကြလျှင်။ ထိုးမကောင်မသန္တသောဥစ္စာပစ္စည်းများ
ကိုမြို့ကအဝေးအရပ်သို့စွန့်ပြစ်လေ၏။

ထိုင်သူပြည်သားတို့သည်။ တကမ္ဘာပါတ်လုန့်တရာသဖြ
င့်အလင်ဖြစ်ရအောင်။ ယမကသေမင်း သက္ကတရာဆုမ်း
ပြတ်ရာမပေမကွက် ထိုက်သက်သ ည်ကိုနှစ်ထားပြီလျှင်။
ထိုင်သူပြည်သား မူမတ်စစ်သူကြီး။ ရဲမက်တို့တညီတညွတ်
ရှိပြီမှ။ လပြည်နေ့နှိုက်။ လမင်းသည်။ နက္ခတ်တာရာကျယ်အ
ပေါင်ခြံရံလုန့်လုက်တောက် ထွန်ဘိသက်သို့။ သိန်သန်မက
သော်ထိုင်သူပြည်သားတို့အကြီး စိပွါကိုဆောင်ဆိုသော်ငှါ။
မင်းကြင့်တရာဆယ်ပါးနှင့်ညီ သဖြင့်မေတ္တာဗိတ်ကိုပွား များ
လျက်။ ထိုင်သူပြည်သားတို့ကိုဆုမွန်သင်၍ရှေးမင်းတို့ကြ
င့်ထုန်းကြင့်နည်အထိုင်မမှာမရွင်စေရ။ ကာလအရှည် သိရိ
ဟံသာဝတီမြို့ကိုစိုးစံတော်မူသည်။ ။ တနေ့သန္တိက်ဂေါသာ
ရဒဗြတု⁽³¹⁾ တွင်။ ကောင်မြတ်သောဘိတ် သိတ်သွန်ခံသည်
သလွန် တော်တော်တက်ဗိတ်နှစ်လုန့်ကြည်းလင်စွာစံနေတော်

(27) ရတနာဓာဏီ (28) ယောဂဓာဏီ (29) ဓာဏီ (30) ကောရာဇ

(31) သရဒဗြတု



မူသော်အခါ။ မှန်ကံသဖြင့်တရာသော်အမှုကိုစင်စာဆင်ချင်
တော်မူသည်။ သိရှိဟံသာဝတီမြို့တော်မှာ။ ဘုရားသခင်ကို
ယံစာတော်နှစ်လုန့်ထား ပြီးလျှင်ထိုင်သူပြည်သား တို့ကိုမှန်
သော်တရာသဖြင့်ဖြစ်စေလိုသည်လည်တကြောင်း။ မကျော်မ
ရွန်ရအောင်သတိပေသည် လည်တကြောင်း။ မှန်သော်တရာ
သဖြင့်ဖြစ်ရအောင်ခေါင်လောင်းတခုကိုသွန်လုပ်ပြီး လျှင်လ
ယံတော်မန်တပ်မှာဆွဲထားမည်။ ထိုင်သူပြည်သားတို့ကိုမတ
ရာသည်အမှုကိုစီရင်လျှင်။

ခေါင်လောင်းကိတိရမည်။ ခေါင်လောင်းသံကိုကြားတော်
မူလျှင်။ ထိုင်သူပြည်သား တို့ကိုမှန် သော်တရာသဖြင့်ဆုမွ
ပေးတော်မူမည်နှစ်လုန့်တော်ထားပြီလျှင်။ ငွေစင်ချိန်ပိတ်သာ
တထောင်ထိုက်သည်ခေါင်လောင်းတခုကိုသွန်လုပ်စေသည်။
။သတ္တရာဇ်ဇဂဏုဗလ္လရုဏ္ဏသံဝစ္ဆရ။ နုတ္တရလဆန် ၁၂ရက်
တနင်္ဂလာနေ့တခါဒိဗ္ဗိ။ ခုလက်။ နေ့တက်ဥတြာနှစ်ပါတ်။ ကြာ
သပဒေတြင်။ ဗုဒ္ဓဟူနဝင်။ ထိုးအခါနှိုက်အေကရာဇ်မင်း
မြတ်သည်သွန်လုပ်ထား စေသည်ခေါင်လောင်းအချိန်၈၂၅၄။
ကိုသွန်လုပ်ပြီး လျှင်လယံ တော်မန်တပ်မှာဆွဲထားစေသည်။
ခေါင်လောင်းသွန်လုပ်ပြီး လျှင်ဆွဲထားသည်နေ့မှစ၍ထိုင်သူ
ပြည်သားတို့ကို။ မတရာသည်အမှုကိုစီရင်လျှင် ခေါင်လော
င်ကိုတိသည်။ ခေါင်လောင်း သံကို အေကရာဇ်မင်းမြတ်အာ
ကြား တော်မူလျှင်။ မှန်ကံသော်တရာသဖြင့် မြတ်ဆိုးဆုမွ
စီးရင်သည်။ ထိုင်သူပြည်သား တို့လည်။ စိတ်နှစ်လုန့်တွံ
၍ရှေ့နှင့်ဆေးဘိသကဲ့သို့စင်ကျယ်သည်။ အေကရာဇ်မင်းမြ
တ်သွန်လုပ်ထား သည်ခေါင်လောင်းကိုပျက်စီရိုး ရှင်လျှင်။
နောင်မင်း အေကရာဇ်တို့သိရှိဟံသာဝတီ ထိုင်ပြည်ကိုမင်ပြု
လုပ်၍ထိုင်သူပြည်သား တို့အာမှန်သော်တရာသ ဖြင့်ရည်

ဇူတောံ တာၣ်ၣ်ပွဲၣ်ပွဲၣ်ပါ။ ကျဲၣ်သၣ်သၣ်ခေါင်လေါင် ကိုသွန်လု
 ပ်ထားရသၣ်။ ထိုင်သူပြည်သားတို့မှန်သော်တရာသဖြင့်ဖြ
 န်ရသၣ်အကျိုး မှာနောင်နိဗ္ဗာနဒေသအရပ်သို့ရော်ရပါစေ
 သော်။ နိဗ္ဗာန်မရဘိအကြာလည်။ ဘဝဝံသိုင်။ ဘဝထိုင်တရာ
 ကိုဆုမွှာရလည်။ မှန်သော်တရာသဖြင့်ဆုမွှာရပါစေသာ။ ။
 ။ငါသည်ကုသိုလ်တရာကောင်မြတ်သည်ကိုပြုရဗြီ။

[On comparing the translation with the original text, through the aid of RATNA PAULA, we find that the first half of the inscription is left untranslated, either from its obscurity or from its not containing any thing of material import. Nevertheless as the document is incomplete without it we will endeavour to give the sense of this portion.

“ In the course of the *Bhattachakambha* (*Bhadrakalpa* or golden age) the holy power of (the Buddhas) KUKUSANDA, KONAGAMANA, and KASYAPA, was manifested; but their religion expired with them. Afterwards the supreme power of the divine mahavira GAUTAMA appeared in the world. From the date of his *nibban* (*nirvan*) 1275 years, (A. D. 732) and after that in this 913th* year, (A. D. 1645) a prince is ruling replete with virtue, intelligence, learning and eloquence, vigour and determination; of a family all virtuous, redressing his subjects' grievances, and distributing favors: he, desiring the opportunity of doing good, consulted with his chief minister DASABENYA and his four ministers in order to extend friendship, and favor, and charity, and to give employ to his subjects of town and country. DOBENYA† expounded that the anointed sovereign was one and supreme, that his city contained the five forces, *Dasabala*, *Nyanbala*, *Káyabala*, *Tejabala*, and *Sutabala*, which being explained mean, *Dasabala* the rich, possessed of gold, silver, jewels, &c.; *Nyanbala*, the rája himself replete with supremacy, power, command, skill, and majesty; *Káyabala*, those having the eighteen sciences, and the warrior class; *Tejabala*, priests and the wise; and *Sutabala* (*Srutabala*), the intelligent inhabitants of town and country. He (the rája) expelled his brother BYANO YO, why?—because he did not walk in the way of the respectable: why was his brother put out of the throne of *Pi?* (*Prome*), because he did not honor or favor his nobles and his generals, therefore was he expelled. DUSSIDAT (TUSHADATTA) commander of the army, with the

* The passage is obscure and the second date 1913—We suppose the 1 to be an accidental stroke the sense becomes as above. † DASABENYA?

[illegible]

[illegible]

officers and soldiers turned away their minds, and many men of *Pi* shook off their allegiance. The supreme king gave to his brother *Adánin* the place where he resides, and to his other brothers, their residences, *Yanchesí, Calhat, Talvi, and Labhá*, four towns, to receive the revenue thereof; to the ministers *DAJAMARAH* and *ADACHA*, the rája had given *Kolya*. These two were ministers of the right side, they had been guilty of beating, imprisoning and other cruelty and extortion to the citizens and country people.....and the people were ruined....."

Then follows the translation as below, but *Ketuvati* appears to be the *Páli* name of the town *Pugahu*, not the province in which it is placed: it is spelt *Ketumati* (the possessed of the royal banner) in the former *Ramrí* inscription printed in the Journal, vol. III. p. 209.—ED.]

Translation.

"At a propitious moment when the constellation *Nekhat** was in the ascendant, on Tuesday the third day of the waning of the moon *Tagoo* (April) the four divisions of royal troops, consisting of elephants, infantry, horsemen and charioteers, marched out of the city of *Pagahm* in the district of *Gaytoowuddee*, and arrived in the country of *Threehenthawuddee* (*Pegu*) in fifteen days, when a camp was formed.

Then the king of *Pegu*, collected his grand royal army, and having set it in order, he marched to meet the enemy, and give battle, but being apprehensive of defeat, he dispatched a letter to the king of *Mautamma* (*Martaban*) calling upon him for aid. The king of *Martaban* thereupon collected his nobles, generals, and all his bold and courageous soldiers, and marched to his assistance. When he arrived in the kingdom of *Pegu*, he mounted the elephant *Airawon*, and attacked the armies of *Pagahm* with such firmness and resolution, that it was impossible for them to withstand the shock, and they were completely routed.

The king of *Martaban* with his nobles, generals and victorious army returning were met by the king of *Pegu*, mounted upon the elephant *Vopantatha†*, and surrounded by the chiefs, and the variously armed divisions of his royal forces. The king of *Martaban* distrusting him of *Pegu*, and seeing himself surrounded by his army, began to tremble for

* The word *nekhat* (*nakshatra*) signifies lunar mansion; there is therefore some mistake here. The words are *didi nekhat*, which may be *tritiya nakshatra*, while the 3rd mansion was rising, to denote the hour of the day.—ED.

† *Uposatha*, the name of a fabulous elephant of supernatural strength, the other animal is called *airávatí*, the name of *INDRA*'s elephant.

his life, he therefore vowed that should he be delivered from the ruin that threatened him, he would become a charitable donor to religious establishments; then having mounted his elephant *Airawon*, he assembled his generals, and set his troops in battle order:—the two armies being now engaged, the king of *Pegu* riding upon his elephant *Vopantatha*, was charged by the monarch of *Martaban*, seated upon the elephant *Airawon*; the tusks of the former being broken in the encounter, he was unable to sustain the fight, but turned and fled, upon which the army of *Pegu* was defeated and the nobles and generals destroyed.

The king of *Martaban* having proclaimed his victory, took possession of *Threehenthawuddee* and the four *Tannees** () which it contained. These four *Tannees* were called *Yadzatannee*, *Bydzatannee*, *Yattatannee* and *Yougatannee*; among them *Yadzatannee* was the most excellent: of the highest order, and possessed of power and greatness. *Bydzatannee* had superior wisdom and knowledge; *Yattatannee* had the seven kinds of precious gems, and *Yougatannee* was careless of life and excelled in bravery. Having taken *Threehenthawuddee*, and banished the evil doers, he ruled over the country in peace. The nobles, chiefs and military officers represented that the property of the temples, of the libraries, and of the monasteries, was not in accordance with the established system, that like a hot iron it consumed every thing near it, and that it should be conveyed out of the country: it was accordingly scattered abroad.

The inhabitants of the whole earth enjoyed the light of his wise administration of the laws. In like manner as the stars are illumined by the brightness of the full moon, so the king desired to see his nobles and warriors, and his subjects, in number more than a hundred thousand, increase their riches in proportion to his own prosperity. The king by means of his ten royal virtues, increased in benevolence; he instructed his people according to the ancient rules and customs†, and would not suffer them to act wickedly. He governed *Threehenthawuddee*, after the manner of former times. Sometimes during the season *Ganthayedda*, when the king reclined upon the royal couch‡ and pleasure filled his breast, he reflected upon the just laws of the world, and thought it would be right to erect a statue of the deity in the

* *Tanee*, is the Sanskrit *dhānī*, the abode of, and these four names are epithets or descriptions of the *Pegu* kingdom, not separate provinces.

† The text has, 'like *Yama* he repressed the wicked.' And further on 'like *Chandra* he shone among the planets of his court.'

‡ The text has, 'in the cool season or *ritu*.'



country of *Pegu*, and establish for the people a true system of justice that they may neither fear nor hate him, but bear him in respectful remembrance, and for this purpose he determined to cast a bell and place it beneath a double roof*, that the people might give notice of their wrongs by striking it, the sound of which reaching his ears, he would be enabled to redress their wrongs. (He therefore) expended a thousand vis of pure silver in the construction of this bell.

On Monday, the twelfth day of the waxing of the moon of July (Phalgun or February—March), three hours and a half after the rising of the ninth sign of the zodiac, in the year 984†, (agreeing with A. D. 1622,) the king caused this bell to be cast, its weight being 8254 vis‡: it was placed beneath a double roof. From the time of its being so made and suspended the people have struck it upon the occurrence of any injustice, the sound of which having been heard by him, he has directed justice to be properly administered. The people of the country perceiving (his benevolence) felt as if washed with water (abuses abolished).

If this bell be destroyed let future monarchs repair it; to this end I have made it, that the people might obtain justice and that I might obtain Nibban, and all ages till that time the laws might be duly administered§. This work of merit I have done."

II.—*Extracts from the Tōhfut ul Kiram*||, and the *Chach Námeh*, translated by Lieutenant T. POSTANS.

[Continued from page 104.]

As the following translations from the Persian manuscripts (*Tōhfut ul Kiram*, and 2nd *Chach Nameh*) afford some information, respecting the early history of *Sindh* previous to, as well as its conquest

* *Mandap*, a kind of belfry or temple.

† There is some confusion, two dates being apparently given, one *Phalgun*, the other July, one is doubtless the rising of the lunar mansion for the fortunate hour.—ED.

‡ This weight must be read rather 825 vis 4 tikals, which at 140 tolas will be about 2750 pounds avoirdupois.—Captain W. made the weight by estimation of the cubic contents 3472 lbs.

§ RATNA PAULA understands this,—and in all my transmigrations before attaining *nibban*, may I duly exercise justice, &c.

|| (*Tohfut ul Kiram*—written *Tohfut ul Khwân* in the former extract from indistinctness in the MS.—ED.)



by, the Muhammadans under the Khalif WALLID ;—they may perhaps be considered of some interest.

Description of Sindh.

Sindh is one of the sixty-one divisions of the world, situated in the five first climates, belonging chiefly to the second, and is in the same region as the holy cities of *Mecca* and *Medina*. The river of *Sindh* rises in the mountains of *Cashmere* ; another joins it from the mountains of *Cabul*, in *Múltán* it is met by the river *Sihun*, and thus proceeds to the sea. Its water is clear and very cool, in the language of the country it is called *Mihran*. All the rivers of *Sindh* flow towards the south, where they empty themselves into the sea, such as the waters of *Pilab*, *Chínab*, *Lahore*, *Sultanpur*, and *Bajíwarrah*. The climate of *Sindh* is delightful, its mornings and evenings invariably cool ; the country to the north hotter than that to the south, its inhabitants intelligent, and of large stature.

Sindh is so called from SINDH, the brother of HINDH, the son of NOAH, whose descendants for many generations ruled in that country. From these also sprang numerous tribes, such as the *Nabete*, the men of *Tak*, and the tribe of *Nomíd* who governed and possessed it by turns. No record remains of these, and its history commences with the last of the dynasty of the *Rahís* (or rájas), whose capital city and seat of government was *Alor*. *Alor* was a large, flourishing, and populous city, situated on the bank of the river *Mihran*, possessing magnificent edifices, highly cultivated gardens, producing every description of tree and fruit : “ travellers found all their wants supplied.”

The territory of the rája of *Sindh* extended to the east, as far as *Cashmere* and *Kunnáj* ; west, to *Mihran* and the sea ; south, to the territories of the ports of *Surat* and *Deo*, and to the north, to *Kandahar*, *Secústán*, and the mountains of *Suliman* and *Kynakan*.

At the time this history commences*, RAHÍ SAHIR SIN, BIN SAHIRSÍ, governed the country of *Sindh* ; he was a good and just man, whose authority being universally acknowledged, extended to the territories abovementioned. The peace which for a long period had reigned in all parts of his dominions, was suddenly interrupted by an incursion of a large army from *Persia*, under the king NÍM ROZ, into *Mukran* and *Kích*, which countries that prince laid waste, and taking with him many prisoners, returned to *Persia*. When the news of this foray reached SAHIR SIN, he was highly incensed, and having prepared a large force, marched to *Mukran*, whence he dispatched mes-

* That is, about the year 2 of the Hejira.

sengers, offering battle to NÍ'M ROZ ; this latter was also prepared, and advanced with all speed. A desperate conflict ensued, lasting from morning until mid-day, in which NÍ'M ROZ was victorious, SAHIR SIN being killed during his retreat, by an arrow in the neck. The victorious army of NÍ'M ROZ, having occupied themselves in plunder, returned to their own country, and the remnant of the Sindhian forces, returned to *Alor*, where, on their arrival, they placed SAHIR, the son of SAHIR SIN, upon the throne, with great festivity and rejoicing.

* *Ráhl*, (or rája) SAHI' following the example of his father, governed the country of *Sindh* with justice and moderation, and security and peace were throughout his dominions. In his minister RÁM RAI', the rája possessed a man fully competent to the discharge of all the duties of government, and being himself much inclined to luxury, and the sensual enjoyments of his harem, he entrusted the management of all his state affairs, to RÁM RAI' ; nor in this man's hands was power abused, but the affairs of the country prospered, and the subjects were satisfied. On one occasion RÁM RAI' convened a large assembly of brahmins and other learned men ; from amongst the former, a young man of pleasing exterior, and great eloquence, by name CHACH, particularly attracted the attention of the minister, who asked him his name, and whence he came, he replied, " I am CHACH, the son of SILAH," a brahmin well known in the city of *Alor*. This introduction was the prelude to a great friendship, and RÁM RAI' discovering the extraordinary talents of CHACH, (who was wonderfully learned in all the learning of the Hindus) made him his assistant and confidential adviser. In a short time the brahmin CHACH became thoroughly acquainted with all the affairs of government, and was entrusted by RÁM RAI' with the sole direction and management of the country ; the people looked upon the brahmin CHACH, as the representative of the rája, and RÁM RAI's influence decreased.

It happened that RÁM RAI' fell sick, and during his illness, letters arrived from a distant part of the dominions, which required the rája's immediate attention. Messages were sent to the king, who, too indolent to leave his harem, desired that the letters might be brought to his presence, where from behind a curtain, he would dictate a reply. His attendants represented that the bearer was a brahmin, whose sacred office precluded the necessity of a veil between him and the inmates of the harem. CHACH read and explained the dispatches, as well as dictated the replies, and by these and other acts, so completely gained the

* (From this to the end is from the 2nd *Chach Namah*.)

confidence and applause of the rája, that he was invested with a dress of honor, and raised to the highest dignity of the state. It happened during the first interview with the rája, that the rání saw the brahmin CHACH, and immediately became desperately enamoured of his person; nor did she hesitate to make him acquainted with her passion. CHACH's honor, however, was proof against her solicitations, and he replied, "I am a brahmin, and cannot be guilty of treachery by violating the harem of the king, whose servant I am; moreover the safety of myself and family would be compromised by such a crime." The rání's passion was too strong to be overcome, and she became melancholy, refusing rest and food. At length the state of affairs became public, and the king was informed that CHACH was plotting with the rání, to disgrace him in the eyes of his subjects: the rája's confidence however in CHACH was not shaken by these reports, to which he gave no credit. Shortly after the rája became sick unto death, and the rání seeing her husband's end approaching, called for CHACH, and told him she had devised a plan, whereby he might succeed to the throne of *Sindh*, as well as gratify her desires after the death of the rája. To this end, she issued a proclamation in the king's name, convening a general assembly of all classes in the city of *Alor*. When the people were assembled, it was announced that the king's health not permitting his attendance, he had delegated all authority to the brahmin CHACH, whom, during the king's illness, the subjects were implicitly to obey. CHACH was moreover invested with the royal signet, and duly acknowledged by the people as the representative of the rája. In a few days the rahí SAHÍ' died, and the rání immediately instigated CHACH to seize the throne, saying, "Now is the time for the accomplishment of my wishes, and the destruction of your enemies." CHACH replied, "I bow to your will." The rání reported, that the rája had no children, but that other members of the family would doubtless assert their claims to the government of the country; she therefore devised the following plot for their destruction. As the fact of the king's death had been kept a profound secret, the relations were invited to the palace, under the pretence that the rája finding himself at the point of death, was anxious to make his will, and settle the succession, to which end it was necessary, that all the members of his family should attend. These people thus inveigled into the palace, were imprisoned and afterwards murdered. The body of the rája was burnt, and the brahmin CHACH proclaimed king of the country of *Sindh* and its dependencies without opposition.

Account of the government of CHACH and his marriage with the rání.

When by the consent of the nobles, CHACH was seated on the throne, he opened the doors of the treasury, and by bestowing largesses on all ranks, made them subservient to his authority, increased the pay of the soldiers, decreased the taxes, founded cities, cultivated all parts of his dominions; and married the rání according to the rites of his religion. When these circumstances were generally known throughout the country, other relatives of the late king, came from *Jaudpúr* and *Chitúr*, to assert their claims to the throne, and having collected a large army, prepared to dispute their rights. The commander of these forces was RANA MIHRUT CHITTO'RI', who, when he arrived in the neighbourhood of *Jaisulmír*, wrote to CHACH saying, "You are a brahmin; the affairs of government cannot be carried on by you; you cannot fight: it is better that you seek retirement, and not rush on destruction."

CHACH took this letter to the rání, told her the contents of it, and said, "a powerful enemy is at hand, what do you counsel?" The rání said, battle is better understood by men than women, if you are not a man, give me your clothes and take mine, and I will go to battle with the enemy." CHACH was ashamed: the rání moreover advised CHACH saying, "You have abundance of wealth, use it liberally amongst your subjects, so that they become attached and obedient to you." CHACH again opened the doors of the treasury, and after distributing large sums of money, collected his force, and prepared to meet the enemy. Suddenly RANA MIHRUT arrived in the neighbourhood of *Alor*, on learning which, CHACH came out to meet him. When both armies were drawn up for battle, and about to begin the contest, RANA MIHRUT cried out "Oh CHACH! why should these men destroy each other. We are the principals in this quarrel, let us then decide the matter by single combat and on foot; if I fall, you shall have all I possess, and if I am victorious, I will rule your country." To this CHACH agreed, and the two chiefs advanced in front of their respective forces. CHACH alighted from his horse, which he ordered his servant to bring slowly after him; but when the two chiefs approached each other, and were about to begin the combat, the servant of CHACH at a preconcerted signal, brought his horse to his master, who quickly mounting and drawing his sword, with one blow killed RANA MIHRUT, whose army seeing the fall of their leader, took to flight. CHACH pursuing them, killed the greater part, the rest fled; he did not quit the scene of action



until the next day, when the people of *Alor* ornamented their bazars and houses, and CHACH with great pomp returned to *Alor*, and became a powerful king. In that year he made a tour of his dominions with a large army*, and was much satisfied with the state of the country. He had two sons, one named DÁHIR the other DIHIR; he had also a daughter. After some years CHACH died, and his eldest son (DÁHIR), succeeded to the throne: CHACH reigned 40 years.

Account of the government of the son of CHACH, on the throne of his father.

By the consent of the nobles and subjects, DÁHIR the eldest son of CHACH, was placed upon the throne of his father; he was just and merciful, bestowed gifts on the soldiers, and was kind to all classes of his subjects. After DÁHIR had reigned one year, he went towards the country of *Shirki*, to the government of which province he appointed a deputy; from thence he proceeded to *Chittore* and *Burhamanabad*, in which latter he sojourned some days, appointing his brother DIHIR its ruler. After a period of six months, occupied in travelling through various parts of his dominions, he concluded a treaty of peace with the governor of *Kinnan*, and returned to his own capital *Alor*. Here he was received with every demonstration of respect and attachment, the people of the city coming out to meet him. DIHIR was inclined to put much faith in the predictions of astrologers, and as he had settled all the affairs of the country under his rule, he consulted those learned men, as to the future welfare of himself and his dominions. They declared, that they had consulted the stars and that neither in the horoscope of the king DÁHIR, or his brother DIHIR, could they discern any malignant influence; but in that of their sister it was ordained, that she should marry, and that her husband should occupy the throne of *Sindh*; and rule the dominions subject thereto.

This intelligence sorely perplexed DÁHIR, who fancied he saw in this prediction the loss of his sovereignty and power. For some time however, he occupied himself with state affairs, but the prediction of the astrologers still perplexing him, he again summoned them, and again required them to foretel his fate. After some delay, they returned him the same answer as before, whereupon DÁHIR called together his father's ministers, and all the servants of the state, and sought their counsel on the occasion, telling them that as he could not bring himself to the

* An account of this expedition has been before given, from the original "*Chach Námeh*." See January No. of the Society's Journal for the present year.

sacrifice of power and empire, he intended, to fulfil the predictions of the astrologers, by marrying his own sister. To this measure his council expressed the utmost abhorrence, representing, that it would not only bring reproach on the country, and violate the laws of the religion they professed; but, that so unnatural a proceeding, would not fail to produce insurrections and disturbances throughout his dominions. These arguments however were of no avail to stifle the superstitious fears of the rája, who after some days, was married in the presence of his nobles, and according to the forms of the Hindu religion, to his own sister. When the news of this marriage reached *Burhamanabad*, *DIHIR* was greatly incensed at his brother's conduct, and wrote to him in terms of expostulation, entreating him to repair if possible, the disgrace he had brought upon the memory of their father *CHACH*, by absolving himself from so unholy a connection. The brother's arguments were of no avail, *DA'HIR* replying, "That he had but fulfilled his destiny, from which it was vain to attempt to flee." In short, *DIHIR* enraged with his brother, collected a force and marched to *Alor* to punish him. *DA'HIR* prepared to oppose his brother, and for this purpose encamped at some distance from the city; awaiting his arrival. In the meanwhile, *DIHIR* marching by another route, reached the gates of *Alor*, thinking in his brother's absence to make an easy capture of the place; but the walls were manned, and the defence so vigorous, that *DIHIR* was driven to the westward of the city. *DA'HIR*, learning the arrival of his brother's forces, threw himself with his army into *Alor*. The next day he proclaimed a general feast, and sent some of his confidential men, with presents and viands, to his brother *DIHIR*, with a view to pacify his wrath, and bring about a reconciliation; but *DIHIR* would neither accept them, or listen to overtures of peace. These messengers were followed by the mother of the princes, who used her influence to reconcile the younger to his brother's conduct, telling him, that beyond the mere forms of marriage with his sister, *DA'HIR* had committed no sin; moreover, that this was understood by all classes of the subjects, and every where accepted, as a sufficient justification of the rája's proceedings. The mother's arguments prevailed, and the following day was appointed for an interview; and public reconciliation between the princes. The next day the rája *DA'HIR* came out with a large retinue to meet his brother, who alighting from his horse, advanced and kissed the rája's foot, in token of submission to his authority. *DA'HIR* also, with much display of affection, alighted, embraced and kissed his brother, and taking him by the hand, led him to his tent, where they remained for some time, *DA'HIR* relating all that had occurred. In the evening *DIHIR* returned

to his encampment, but was shortly after attacked with small-pox, from the violence of which malady he died after an illness of four days. DA'HIR's sorrow on hearing of the death of his brother was very great, and after dispatching messengers to ascertain the truth of the report, he himself with his head and feet bare, proceeded to his brother's residence; he helped to bear the body to the pile, and assisted in the funeral ceremonies. DÁHIR afterwards proceeded to *Burhamanabad*, where he appointed a governor in the place of his deceased brother: he then returned to *Alor*, and for some years governed the country in peace and prosperity.

Reason of sending the army of the faithful to Sindh.

In the history of *Sindh* it is related, that during the Khalifat of ABDUL MALLIK, the king of *Sirundip (Ceylon)*, sent some of his servants with presents of female slaves and other merchandize, to the Khalif at *Bagdad*. The boat which conveyed these people was attacked near the port of *Dibul*, (which to this day is called *Tattah* and *Lahoury*) by a band of robbers, who killed the greater part of the messengers, seized the property, and made many of the people prisoners: some few escaped, and reported what had occurred to the Khalif.

The Khalif was incensed at the outrages, and immediately ordered a force to be prepared to attack *Sindh*. In the meantime the Khalif died, and the marching of this force was delayed. After the death of ABDUL MALLIK, his son WALLI'D (BIN ABDUL MALLIK) succeeded to the throne, and HIJJAJ BIN YUSUF was to settle the affairs of the countries of *Urakin*, *Kirman*, *Khorassan*, and *Síostan*; he also made himself acquainted with the state of affairs in *Sindh*, and wrote to the Khalif, representing, that the servants of the king of *Sirundip*, who had been dispatched with presents to his father, were still prisoners in the fort of *Dibul*, that it had been the intention of the former Khalif, to punish the committers of the outrage, and release these people; but that his death interfered to prevent the measure. HIJJAJ urged the Khalif to give the necessary orders for the dispatch of a force, and as he considered it an office of some importance, wrote himself to the rája of *Sindh*, (D'AHIR BIN CHACH,) stating what had occurred, and demanding an explanation. This letter HIJJAJ entrusted to two messengers directing them at the same time to act as spies, and give him every information respecting the state of the country of *Sindh*. When HIJJAJ's letter reached DA'HIR, he received it with all respect, but replied, that as the outrage complained of had been committed by a band of lawless people, over whom he had no control; he had neither the power to

punish them, or return the property which had been seized. This reply was conveyed to HIJJAJ, with every particular respecting the country, and at the same time the necessary orders were issued from the seat of authority at *Bagdad*, for assembling a large force to subdue *Sindh*. The command of this army was entrusted to MAHOMMAD BIN KASSIM, a cousin of the Khalifs; the expenses of its equipment were directed to be paid from the public treasury, under the direction of HIJJAJ BIN YUSUF. In one month HIJJAJ collected 15,000 men (of these 6000 were horse, 6000 mounted on camels, and 3000 infantry), and marched them upon *Sindh*, sending with them 30,000 dinars for expenses. The marching of this army took place in the year 92 of the Hejira. God is great.

Account of the conquest of Sindh by MAHOMMED BIN KASSIM, and of the death of DÁHIR.

KAZÍ ISMAEL BIN ALI, BIN MAHOMMED BIN MU'SA, BIN THAI' has related, that during the time of the reign of WALLÍ'D BIN ABDO'U'L MULK, HIJJAJ BIN YUSUF SU'KUFIE, sent MAHOMMED BIN HARU'W from *Bagdad* to *Mukran*, and he conquered *Mukran*, and the countries on the bank of the river *Kulzum*. In the year 92 Hejira, MAHOMMED BIN KASSIM, cousin of the Khalif's, and son-in-law of HIJJAJ BIN YUSUF, with the army of the faithful, marched to attack *Sindh*, being for some time employed in *Kerman*, in preparing his forces, passing through *Kich* and *Mukran*, he marched towards *Sindh*. When DÁHIR heard of the arrival of the army of the faithful, he prepared to advance to *Mukran* and attack them; the great men of the state however dissuaded him from this, representing, that BIN KASSIM's army was composed of Arabs, who were instigated by revenge and hatred of the Hindu religion to conquer the country; that it was necessary to be cautious, and if possible to satisfy BIN KASSIM with overtures of tribute, but in case of such overtures not being accepted, then said they, "Let us make some other arrangement, and having collected a great army with the assistance of the treasury of the state; let us preserve the country from the calamity with which it is threatened." RAHI' DÁHIR approved of this advice, and delayed his march until the army of the faithful had arrived at the fort of *Neirunkote*, which they besieged, and after much fighting captured, killing most of the infidels: the rest fled to the capital *Alor*. Elated with this success, BIN KASSIM marched upon *Tattah*, which place he soon reduced, releasing the prisoners who were there, and sending them to HIJJAJ; he then directed his steps towards the neighbourhood of *Secústan*. The

account of the battle which there took place, exceeds the power of tongue to relate; in two encounters the infidels were victorious; the third time victory was declared in favour of the faithful, and the infidels fled. MAHOMMED BIN KASSIM having conquered the fort of *Secústan*, settled the affairs of the surrounding country, and sent a deputy to *Tattah* putting the affairs of that place and *Neirunkote* into his hands.

It is related, that when MAHOMMED BIN KASSIM, arrived in the neighbourhood of *Secústan*, the men of *Chuneh* sent a spy into his camp, who arrived during the time of the calling to prayers of the army of the believers. On that occasion, the Mussulmen were formed in lines for prayers, and MAHOMMED BIN KASSIM acted as the preacher, the faithful being collected round him, attending to his discourse. The spy beheld this, and reported to the men of *Chuneh*, saying, "I swear by God, that that tribe are so unanimous, that whatever enterprise they undertake, there can be little doubt but they will conclude it." He also told them how attentive and obedient they were to the advice of MAHOMMED BIN KASSIM. On hearing these words, a desire arose in the minds of the men of *Chuneh*, and they enlisted under the banners of Islamism: they were the first inhabitants of *Sindh*, who became Muhammadans."

After the arrangement of affairs in *Secústan*, it was debated in the army of the faithful, whether it should first attack *Brahmanabad*, or the capital of the country *Alor*; but BIN KASSIM decided in favour of the latter, for said he, "let us first reduce the capital and dethrone the king, the other places will then fall into our hands." This was agreed upon, and having passed the river opposite *Talhatty*, the army of the faithful proceeded to *Alor*. DÁHIR on hearing this, prepared for battle. The astrologers however told him that they had consulted the stars, and learnt that his horoscope boded him bad fortune; whilst the star of the army of the Muhammadans, was in the ascendant. On this account, they counselled him not to depart from the city, but to entrench himself within its walls. DÁHIR therefore sent a countless army from the city, who arrived upon the banks of the waters of *Gunjeri*, the next day, BIN KASSIM in the place called *Duffian*, appointed ABDULLAH BIN ALI' SU'KUPI', to attack the enemy. He accordingly arrived opposite the army of the infidels, in the place called *Kullah Gunjeri*, on the bank of the river. They met and fought furiously; the infidels were worsted, and many of them killed, and some say, that the defeat of the infidels on that day, was ascribed to an accident which befel their commander, whose horse threw him, and galloping amongst the ranks of the soldiers, led them to believe that their chief was killed, whereupon they fled. In short, ABDULLAH returned to BIN KASSIM victorious, and

BIN KASSIM marching from that place arrived at *Alor* and laid seige to it. DÁHIR was thus surrounded in his own city. BIN KASSIM erected a catapult, and threw fireworks (which he had seen in use amongst the people of *Persia* and *Rûm*), into the city. Both armies, the besieged and besiegers, fought desperately, so much so that in ten days, seven battles or engagements took place, in every one of which the Muhammadans were victorious; and on the day of Thursday the 10th of the happy month of *Ramzan*, in the year 93 *Hejira*, the king DÁHIR, instigated by rage and revenge, prepared his war elephants, and with a large force came out from the city of *Alor*, to do battle for his crown and kingdom. They say he had 1000 men with armour, and 30,000 infantry in line, in advance of his army. DÁHIR himself, seated in the howdah of an elephant, the cover of which was highly ornamented, went to the right and left animating and encouraging his troops. On that day two beautiful female slaves were seated in the rája's howdah, one administered wine, and the other paun to him. The armies fought from morn until night; BIN KASSIM with a division of his army, fought himself as a common soldier on the plain, overthrowing all to whom he was opposed, whilst others of the faithful threw fireworks into that part of the enemy's army occupied by the elephants. In this way the howdahs took fire, and the beasts becoming infuriated, rushed through the ranks of their own troops, and fled to the water, into which they plunged themselves. The banks of the river were muddy, and DÁHIR's elephant sank in the mud, at the same time, an arrow from the Muhammadan army struck the rája DÁHIR in the throat, and killed him: this occurred at the time of the setting of the sun, and the brahmins who were seated behind DÁHIR's howdah, took his dead body, and burying it in the mud, went towards the city. DÁHIR reigned 33 years.

Now the Muhammadans had so cautiously guarded all the approaches to *Alor*, that a bird could not have flown past, and these brahmins became prisoners in the hands of a general named KEISS. KEISS was about to kill them, but they asked for quarter, relating to him the circumstances of the rája DÁHIR's death: on this KEISS spared their lives. In the meantime, some soldiers having captured the two female slaves who were with DÁHIR, and brought them to BIN KASSIM; these last also reported the death of the rája. On learning this, BIN KASSIM proclaimed to his troops, "The death of DÁHIR is reported, but as yet it is not certain, let not the faithful therefore withdraw their hands from battle, for the sake of plunder, lest some unexpected enemy come upon them." When KEISS heard this proclamation, he brought the brahmins whom he had captured to BIN KASSIM, who when he heard their report

which confirmed that of the female slaves was overjoyed, and the army of the faithful rent the sky with acclamations. BIN KASSIM accompanied by the brahmins and confidential servants, then proceeded to where the body of DA'HIR was buried; they took it from the mud, and cutting off the head, stuck it on a spear. They shewed it first to the female slaves, who knew and recognised it. BIN KASSIM then ordered all his troops to come round the fort, and occupy themselves with thanksgiving and prayers to God for the victory. That evening was the evening of Friday, and they prayed till morning. When the day dawned KASSIM ordered that they should place the head of DA'HIR with the female slaves upon the gates of the fort, so that all men of the city might see the same; by these people DA'HIR's name was execrated, for going to battle attended by his concubines. When the news of DA'HIR's death reached his wife LADI', she was overwhelmed with grief, and came to the gate where the slaves were, asking them the circumstances of the death of DA'HIR. The women weeping, shewed her the rája's head, on seeing which she threw herself from the walls of the fort, and a noise and tumult arose amongst the men of the city, who being helpless, opened the gates of the citadel, and on Friday the 11th of the month *Ramzan*, A. H. 93, the Muhammadan army entered the fort of *Alor*, A. D. 711, taking possession of the treasury, and property of DA'HIR which they entrusted to the charge of KEISS. They turned the temples of the idol worshippers (Hindus) into places of prayer, destroyed the idols, erecting pulpits in their stead. At the beginning of the month of *Shuwal*, BIN KASSIM took an account of all the treasure, booty, property and prisoners, and sent them with 200 horse in charge of KEISS, by the road of *Kích* and *Mukran*, to *Bagdad*, and HIJJAJ being acquainted with those circumstances, was much pleased: after that he sent all the plunder in charge of KEISS to the Khalif at *Sham*. When KEISS arrived at *Sham*, he placed the crown, treasure, and all the property of DA'HIR, at the feet of the Khalif, relating all that had occurred. The Khalif was pleased, and bestowed presents and honors, upon the messenger of these good tidings, and at the same time, issued a royal mandate to the army, saying, the army of the faithful must not be satisfied with the conquest of *Sindh*, but must proceed to the eastward immediately, and all the country which belonged to DA'HIR, must be subdued.

When this order reached BIN KASSIM, he conquered *Brahmanabad**, and settled the tribute it should pay, and the brahmins who

* This city was next in size to the capital *Alor*, and was known also by the names *Báhmāna* or *Bhamāna*, situated in or near the *Púran*. For an account



were before employed to collect the revenue were still retained in their several capacities, and the men of *Summah*, which were in the neighbourhood of *Mihuri*, having collected, came with music and singing to pay homage to BIN KASSIM*. He asked who they were; the brahmins replied, "These are inhabitants of the desert, whose custom it is thus to shew respect to their governor." BIN KASSIM settled their tribute, and dismissed them. The men of *Lohana*, *Suhuteh*, *Judrúnai*, *Haleh* and *Kúrtjeh*, directed by ALI BIN MAHOMMED BIN ABDU'L RUHNAI' SULLATI, with head and feet bare, came to offer service to BIN KASSIM, craving pardon, and seeking protection, which BIN KASSIM promised them, directing, that their future service should be to act as guards to such followers of the prophet, as should travel to and from *Eagdad* and *Alor*.

Story of the death of BIN KASSIM.

From amongst the prisoners captured at *Alor*, two daughters of the king DA'HIR, were sent in charge of MAHOMMED BIN ALLI INTU-MANI', with some Habshís to *Bagdad*; the Khalif sent these two women to his harem, consigning them to the care of his people until their grief should be assuaged, so that when they were relieved from the distress of travel, they should be ready for his (the Khalif's) service. After two months, these women were brought to the presence of the Khalif, an interpreter being present; when they raised the veils from their faces, the Khalif was smitten with their beauty, and asked their names; one was called GIRPUL DEO, the other SU'RUI DEO. The Khalif ordered one to his own bed; she said, "Oh my lord, I am not fit for the king's service, we have both for three days been with BIN KASSIM, who after dishonouring us, sent us here." The interpreters explained this to the king. The king was highly incensed, and directed that his servants should seize BIN KASSIM, sew him up in a cow-hide, and send him to *Sham*; afterwards to enforce this order, he wrote in the margin of the letter with his own hand directing that in nowise should it be disobeyed. At that time BIN KASSIM was at *Hudapúr*, and when he received the order of the Khalif, after reading it, he directed the messengers to do as they were directed. They obeyed the order, covering BIN KASSIM with a raw cow-hide: after enduring the torture for 3 days he died. They then put his body into a box, and conveyed it

of this as well as other cities and divisions of the ancient country of *Sindh* see Art. on *Sindh* by Captain McMURDO, Journ. Royal As. Soc. No. II. November, 1834.

* Belúchi (?) tribes who paid homage to BIN KASSIM.



to the Khalif. When they reached *Sham* they shewed the box to the king, who ordered it into the seraglio, opening it in the presence of the daughters of DA'HIR, to whom he said, "Behold how absolute is my power, and how I treat such servants as BIN KASSIM." The women replied, "Oh king, just men ought not to be precipitate in great affairs, or be too hasty to act, either upon the representation of friends or foes." The king asked their meaning, they said, "We made this accusation against BIN KASSIM because of the hatred we bore him, seeing that he slew our father, and through him we lost all our property and possessions, and became exiles from our own country; but BIN KASSIM was like a father and brother to us, he looked not on us for any bad purpose, but when our object was revenge for the blood of our father, we accused him of this treachery: this end attained do with us as you will." The Khalif on hearing this, suffered great remorse: he ordered the two women to be tied to horses, and dragged to death, and they buried BIN KASSIM in the burial place at *Damascus*.

III—*Note of a visit to the Níti pass of the grand Himálayan chain.*

By J. H. BATTEN, Esq. C. S.

[Extracted from a letter to, and communicated by, Captain P. T. CAUTLEY.]

Joshináth, 22nd Dec. 1837.

Having just returned from the *Spiti* pass, I think that an account of my expedition thither, however brief, will not fail to interest one whom I look upon, now that the admirable FALCONER is far away absent from India Proper, as the chief scientific authority of the Upper Provinces. You are entitled to the first tribute of information gleaned in my trip, because you have been ever ready to give the benefit of your instruction to your pupils; and secondly, because FALCONER and yourself have rendered the geological *School* of *Seháránpur* illustrious, by the well-deserved medals which you have won for its professors!

Above the junction of the *Dhauli* and *Alaknanda* branches of the Ganges at *Vishnúprág* a mile below this place, (which is the chief seat of the BADRINA'TH RÁWAL and his priests,) the glen of the *Dhauli* continues for 35 miles up to *Níti* village. Near *Joshináth* and the whole way to the junction of the *Kíní* river, which comes from the north-west face of *Nandi Dévi*, this glen is characterised by the most exquisite scenery; the southern mountains sloping down to the river covered by forests of *Quercus semicarpifolia*, *Rosa webbiana* (wild red rose), yew,



horse chesnut, alder, poplars and elms, interspersed with pretty villages of which the chief ornament, at this season, are the fields of red *Marsa*, (the *Battá* of *Bissehr*) a species of amaranth, while the high craggy northern mountains and peaks, that form the separating ridge between *Badrináth* and *Nítí*, come down to the *Dhauli* in the most terrific precipices. Above the *Ríní*, both sides of the glen assume the regular *Himálayan* features of wild sublimity, although villages are every where seen perched up on seemingly inaccessible heights. The river remains broad and deep, though often broken into cataracts. The road (a fine new one made by myself this year) is carried on *either* side of the river as most easy, and is crossed by fine *Sangas*. We soon enter *Bhote*; and flocks upon flocks of sheep carrying loads of grain, or salt and borax according as they are from *Bhote* or to *Bhote*, are met with at every step, guarded by the savage dogs of *Thibet* and the still more savage *Bhotias* among whom are also discerned a few most savage *Lámias*, or wandering beggars from *Tartary*. Of the latter the dress and appearance are most strange; the women are scarcely human, and both they and the men resemble the pictures given of the *Esquimaux*. The children are rosy-cheeked and sometimes pretty, but the small Chinese eyes buried in the face give a somewhat monkey-like look to their physiognomy. This latter observation applies equally to the *Bhotias* as to the *Lámias*. But I refer you to *TRAILL*'s report on *Bhote* for a description of the people and their customs, as well as of the trade between this province and *Thibet*, and the mode in which it is conducted. Let me rather tell you what *TRAILL* does not describe with accuracy, or at least with minuteness, viz., the rocks and the trees and the general geography. There is a very dreary glen without villages for ten or twelve miles separating *Upper* from *Lower Pynkanda*, or as they are sometimes, but improperly, called *Upper* and *Lower Nítí*. After leaving the oaks and elms, &c., the wood becomes entirely *cypress*, and from summit to base of the mountains no other tree is seen. The larger trees attain not unfrequently an enormous size, some of them having a girth of 27 feet. The smaller kind are, however, the prettiest, and even *appear* to be different from the larger in species; but on observing them attentively I perceived no difference whatever in reality between what some travellers call the *Arbor vitæ* and the large *Himálayan cypress*. At *Júma*, *Upper Pynkanda* is entered, and then the scenery, retaining all its grandeur, also becomes exquisitely lovely. Villages of the true Swiss character are seen on every open spot, surrounded by *cedar* trees, and overhung by crags of the most stupendous character wooded up to the snow which shines on their summits,



with similar trees and birch, which latter as well as the sycamores have at this season the true autumnal tints contrasting finely with the dark branches of the deodar. The bridges now become very frequent; and the river, though still unfordable, becomes a torrent falling over rapids. *Malirí* is next entered, a very large village in every respect similar to those seen in *Kanaur*. The crops when I arrived had just been cut, and it was somewhat strange at 10,250 feet above the sea to see the fields in the valley covered with harvest-sheaves, while the eternal snows were not more than 3000 feet distant overhead: and heavy frost was whitening the ground. Between *Malirí* and *Melam* in the *Juwáhir* pass is a route practicable in August for about a fortnight every year, but like all the other routes *within* the *Himálaya* very high, snowy, and dangerous. It is in this intermediate range between the *Dhauri* and the *Gori* that *silver* is said to exist*. *Lead* mines are now worked on a high range not far above *Mularí*; but the situation renders all hopes of increased produce or new discoveries of this metal, almost vain in this direction. After leaving *Mularí*, we march up a glen of the most beautiful kind, the deodar trees (all of the *spreading* shape) coming down to the waters' edge, and now beginning to be mingled with chilapines† (*pinus excelsa*, not unlike the *chir* at a distance), and *Rágha* firs (*abies webbiana*): a set of large villages is then entered. *Bampa*, *Gumsáli*, &c. all varying in elevation from the sea from 10,200 to 11,000 feet and upwards, the highest of which is *Niti*. At *Bampa* the deodar pines end, and no other tree is seen save birch and *pinus excelsa*, but the ground is covered as well as the surrounding heights, with beds of ground cypress, gooseberries, currants, furze, (*astragalus*, ROYLE,) webb rose, sweetbriar and juniper. The furze is especially plentiful, but there is no heath as at *Badrináth*. By heath I mean the *andromeda fastigiata* depicted in Royle. Up to *Gámsáli* the rocks have been quartz, mica, schist and gneiss, with granite blocks, in the river beds, fallen from the peaks, except in the neighbourhood of *Mularí* where argillaceous and

* N. B. All our *snowy* range galena ores have a *good* proportion of silver in them? Would this be worth extracting by chemical process? *Could not you* come and visit all our mines? [Capt. DRUMMOND and an experienced miner have since been deputed to the district.—ED.]

† N. B. The *Chilá* pine grows up very near to the upper limit of birch. At *Niti* it is found at 11,800 feet; the birch only goes to 12,200 feet. At *Badrináth*, the limit of wood is lower, as the snow comes down lower. Both *Badrináth* and *Niti* are within the *Himálaya*, and have snowy peaks to their south: *Kedárnáth*, is on the contrary on the *south* base of the peaks and snow is met with at 10,000 feet. *Gangautrí* and *Badrináth* are in the north of the peaks. *Jamnautrí* and *Kedárnáth*, on their south.

talcoose schist is the chief rock. At *Gumsáli* the granite is met with *in situ*, pervading gneiss and mica schist, exactly in the mode shewn by LYELL in his picture of *Cape Wrath* in *Scotland*. The breadth of the veins is sometimes very thin, but sometimes the granite spreads into great broad patches. It is a reddish variety in general, but a highly quartzose variety with large schorl (?) or tourmaline (?) crystals is very common. Just above *Gumsáli* the river runs through tremendous gneiss and granite precipices, and the road is carried along scaffoldings, now quite passable for a poney, *hamáre aqbál se*. After turning this corner and ascending to *Níti* village the *Himálaya* peaks are all turned, not one is left to the north, though some of the northwest and northeastern heights are within perpetual snow limits. At *Níti* limestone (not crystalline) and argillaceous schist, chiefly the latter, are the rocks. *Níti* is 11,500 feet above the sea, and when I arrived no snow was to be seen even in the river bed. On the 10th October, I left the *Nítians* cutting their barley and pháphar harvest, and proceeded on to the junction of the *Gunés* with the *Dhauí*. I met with the first snow near *Gildúng*, more than 14,500 feet high, and this snow was merely a snow-cave in the river, the leavings of last winter. A few masses of gneiss and granite were still to be seen in the bed of the *Dhauí*, the debris of some of the southern precipices through which I could see the granite veins running along; but argillaceous schist and quartz were the rocks of the surrounding hills. There is one very bad gorge between *Gothing* and *Gildúng* pastures, where I shall have some trouble in making my road, but after *Gildúng* the hills are round and smooth up to the pass. They were covered with grass and saussúre flowers, the grass of very peculiar kinds and noted for its goodness. The pastures were covered with yáks (chowra-gaies) and jubboos, the mule breed. These animals retreat of their own accord to the villages on the setting in of the winter just before the villagers depart for the southern parganas. I carried up firewood and other loads on the backs of yáks, and my servants rode on others. Very few are white, except at the tail.

The rivers *Gunés* and *Dhauí* are mere streams, and were half frozen above *Gildúng* at their junction, but between *Gothing*, the *Rylkanda* joins the main river with a large body of water, arising at this season from a glacier, and up to this point the *Dhauí* may be said to be unfordable, except at one or two rocky points near *Níti*. The *Gunés* may be said to arise from a snow-bed, for I saw snow-caves towards its source, but the *Dhauí* or farthest branch of the Ganges certainly rises from a spring at the southern face of the pass where on the 11th Oct. there was not even a speck of snow. My camp on the 10th, was at

14,500 feet of elevation and I was sufficiently wretched and cold; the wind on the open downs being terrific, and blowing from the southern peaks. At this point juniper was still plentiful, but no other shrub, and the grass was excellent, though coarse. On the 11th Oct. I started very early for the pass, being carried in a *dandi*. The first part was all smooth-going, but the rarity of the air became very distressing, after entering the 15,000 feet line, and parting with the juniper.

After leaving the source of the *Dhaulī*, the ascent was very steep through crumbling *crags* of blue limestone which now succeeded to the round clay-slate hills; but the top of the pass was round and open, the limestone lying about in stones as far as the eye could reach, interspersed with arenaceous quartz rocks. There was not a cloud in the sky or on the mountains far and near, and I obtained a full and undimmed view into *Thibet*. The wind had not yet got up, but the cold was terrific, 14° in the shade, and 30° in the sun at 8 A. M. The first object that caught my eye was the one *Kailās Peak* standing up in the E. N. E. among a row of not very peaky snowy heights, which terminated that end of the picture like a white *kanraāt*. Right in front stretched a dreary plain, shrubless, treeless and houseless, terminated along its whole northern side at a distance of about 20 miles from my position by a low range of rounded brown hills, utterly without shrub or tree or jutting rock, but very broken into ravines and perpendicular faces on this their southern side. The E. N. E. peaks towards *Manasarovara Lake* of which I spoke, stand up close behind this range, to all appearance, but there are 20 or 30 miles of plain between them, I am told. The plain is broken into ravines and river courses running down to the *Satlej* which flowed (not visibly as to water) in a deep ravine not far from the base of the round hills. I saw *this ravine* distinctly. *Dāpa* was not visible even with a telescope, there being no smoke, and it lying among the ravines. It has no bazar and is only a row of *mud* huts. *Dāmpū* was pointed out to me on the south slope of the hills to the northeast. The *Kailās peak* did not appear to be higher than 5,000 feet (if so high) above my position, but its distance I do not know. It appeared hardly higher than the lower range appears from *Sahāranpūr*. No snow was visible except on the *Kailās* range and on the top of the highest portion of the intermediate hillocks, just behind *Dopa*. Travellers were passing over the plain with loaded sheep going to and from the pass, but there were no cattle visible at pasture. The whole country looked something like that Ward of Lanarkshire (I forget whether north, east, south or west) in which Tintoeh peak is situated, and the distant hills looked like

those of Peeblesshire. Had there been heather instead of stone and brown grass, it would have resembled a highland moor. Its level was hardly any where lower than the pass!! but immediately below the pass was a deep ravine which might deceive some people into the idea of a descent, whereas the opposite side of the ravine was certainly within 300 feet as high as this side and thence the plain begun. I descended into this ravine, saw the source of the *Siánki* river and some green ponds on one side of it, thence ascended the opposite banks, keeping to the northwest for two miles till I came to what was called the fossil ground, (*Chalera patharke mukán.*) During this walk I was almost killed by mere pain. The rarity of the air along this *high road to Dápa* (nearly 17,000 feet) was perfectly awful. My dandi people would not go on and returned to the crest of the pass. One man accompanied me and he and I went groaning along, at a snail's pace; on a level, and yet in great agony. (Angina pectoris I now consider nothing in comparison).

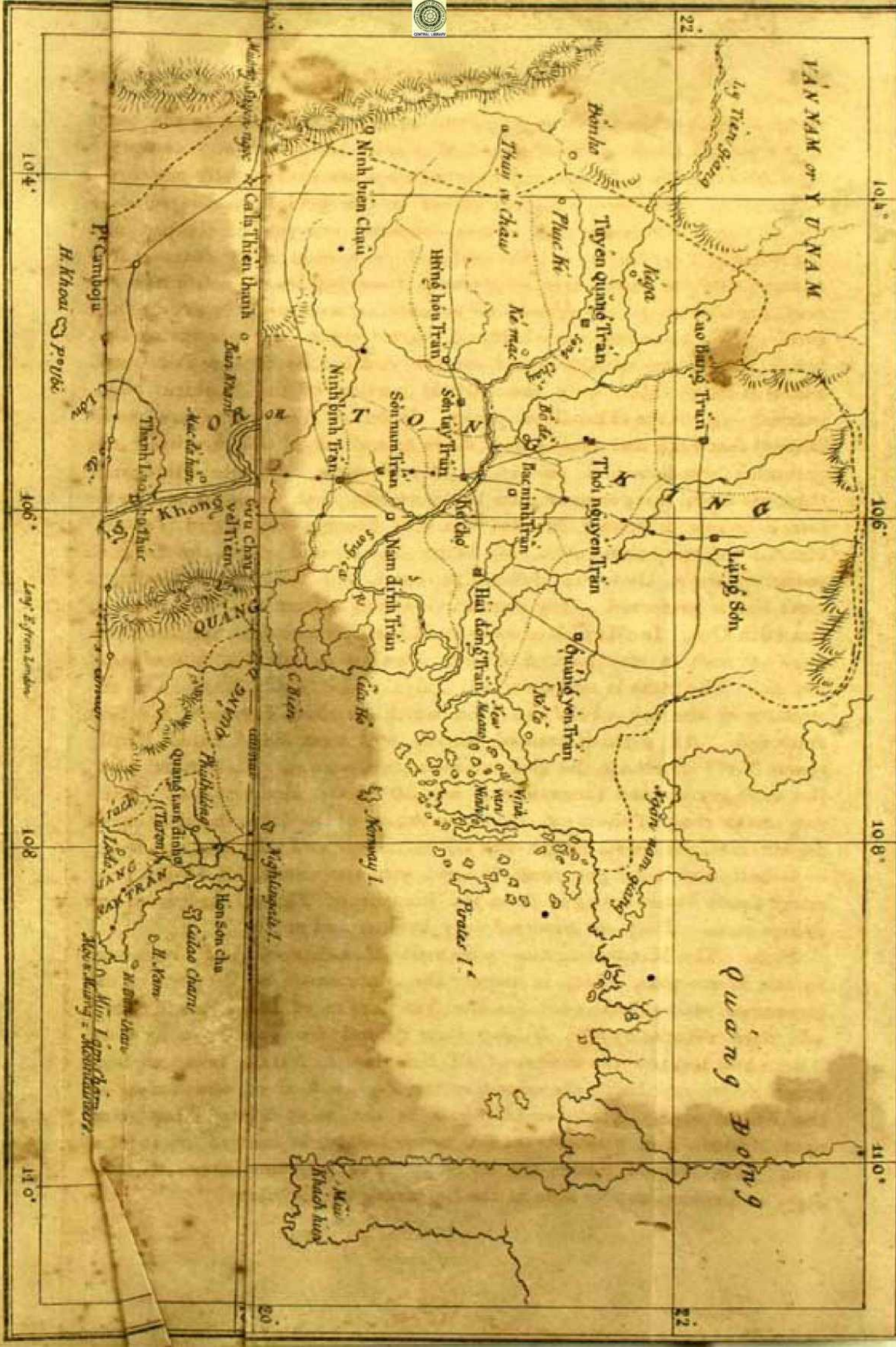
The *Niti* Bhotias regularly educate for the endurance of this air, (*Bish ke hawá,*) and some cannot learn to bear it during their whole life. At *Dápa* I am told that in the morning and evening people feel it most, and an universal headache prevails. I felt the pain most at my chest, and suffocation seemed to threaten me at every step. There was, thank God! neither snow nor wind to add to my sufferings. I found the ammonites lying about in *hundreds* on the top of a small ascent just as the road wound through a kind of pass between two hillocks, before it descended to a ravine. The distance from the *Niti* pass was about three miles, but at this point the continuation from that pass of the crags forming the first rise of the *Himálayan* mountains was not very distant. The rocks surrounding the fossils were a kind of mottled grey limestone, i. e. the white veins were more frequent than in ordinary limestone. The hills seemed all to be decomposed hereabouts: and from the glen of the *Siánki* river, I observed that the limestone was in almost perpendicular *strata*, dipping to the northeast where a dip was visible; but the strata seemed to be the effect of a convulsion and not to be naturally formed. Indeed, the quartzose masses on the south side of the pass were all of a similar appearance, and some hills were composed entirely of white decomposed soil; as others, on both sides, were of a black soil. I was too ill to stay long picking up ammonites, and, moreover, I can always command a good supply from the Bhotias. I shall send you a present of specimens. To my surprise, I found in return that the whole ravine down to the *Siánki* river was equally full of ammonites, but that being round and uncovered from their matrix, the natives did not generally observe them so well as the broken ones high-

er up. Wedged in the blue limestone in the ascent back to the crest of the pass, I observed a large bed of thinly laminated and contorted argillaceous schist. The round quartz stones are every where scattered.

I see no difference whatever either in the geological character of the hills or the form of the ranges, between one side of the pass and the other. *Tartary is in fact entered very soon after leaving Niti village, and the peaks seen so grandly towering in the south are the real beginning of the Himáláya mountains, and not the crest of the pass.* Pray come and see whether I am not right in conjecturing that fossil ammonites can be found on the south face of the Niti pass, which is in my idea, only the highest portion of the Tartaric plain, running up to the Himáláya peaks. Even at *Niti*, there are peaks 23,000 feet high *due south*; and *there* as well as at the pass itself the spectator wonders how one is to thread one's way into Hindustán through them, no gorge or glen being visible, that seems to be like an introit or exit. Behind *Malári* the hills become round and Tartaric also, as well as behind *Niti*, but being higher and within the limit of perpetual snow, they are difficult to cross, and the pass following a river bed is preferred. The time to visit *Niti* is from the 20th Sept. to the 10th Oct. In May, *Malári* even is hardly reachable, and the snow does not melt in any part of *Upper Pynkanda* till the end of that month. The pass is not open till July, and it shuts now. On the evening of the day (11th Oct.) on which I visited the pass, the first snow fell. All night it snowed heavily and next day I could hardly reach *Niti*! Such are the vicissitudes at this season. At 3 P. M. when the wind got up, the thermometer was 30° in the shade and 42° in the sun at the crest of the pass. On the morning of the 12th, in my camp at 14,500 feet, the thermometer was 16° in the air and 22° at my bedside!

I shall wait till I get back to send you specimens. I have a good many fossil bones brought from the interior of *Thibet*, and from the *Mána* pass. They are however very broken and small.

P. S. The Hindu pilgrims who visit *Manasarovara Lake* go up by the *Mána* pass, which is merely the continuance of the glen of the *Saraswati* above *Badrináth*, (as the *Niti* pass is of the *Dhauli* river,) and they return by the *Nilang* pass behind *Gangautri* or by *Niti*. These two last are the easiest of all the passes, *Nilang* being without much ascent and being the course of the *Jhannábi* river, which rises on the *Thibet* side. The *Juwáhir* pass is the most difficult, but being near *Almora* the greatest traffic, nevertheless, is carried on in that pass. The *Neipál* passes are all easy. The pilgrims leave *Mána* in July, and return to this side in the beginning of October.



VAN NAM or YU NAM

Ly Tien Giang

22

Bonha

Phuc Ho

Thuy Chau

Ké mac

Hinh hau Tran

Son tuy Tran

Son tuan Tran

Ninh binh Tran

Ninh bien Chau

Canh Thien Thanh

Dau Nam

Muc da huan

Thanh Lo

Pi Cambou

104

106

Long E. from London

108

110

104

106

108

110

Lung Son

Quang Dong

Ngan son Giang

Quang Yen Tran

Thoi Nguyen Tran

Ké cho

Hai dong Tran

Nam dinh Tran

Song ca

Cá bi

Cau Chau

Khong

Thien Lo

Thien Lo

Thien Lo

Thien Lo

Muc da huan

Hen son chu

Quang nam dinh

Thien Lo

Thien Lo

Thien Lo



IV.—*Additional notice on the geography of Cochinchina. By the most Rev. JEAN LOUIS, Bishop of Isauropolis.*

Although I have already given you a short account of the geography of *Cochinchina*, I think it is advisable to add a few more remarks because in the first place, I have recent intelligence from that country that various changes have taken place in the divisions or limits of the empire; and in the second place, because I have made,—and in some cases I have not made,—the consequent alterations in the map which I am about to publish.

The letters to which I have above alluded inform me that the kingdom of *Camboze*, henceforth will only have a local habitation and a name in our old maps. This kingdom so ancient, known in the Chinese annals by the name of *Chón lap* and of *Chiém lap*, was originally designed by them under the name of *Phú nam*. From the fifth century and perhaps even before, it was divided into two parts, one named *Chiém lap* (maritime). This part was the nearest to the sea and has the appearance of an immense lake. It is the division now known by the name of *Gia dint*, or the province of lower *Cochinchina*. The northern part which is very mountainous was called *Chiém lap* 'of earth' (inland). This denomination ceased about the year 606 of the Christian era, when the general name of *Chiém lap* or *Camboze* embraced the whole. This kingdom was bounded on the north by the kingdom of *Laos*, on the west by the kingdom of *Siam*, and on the south by the sea, for it is within the last century only that lower *Cochinchina* has formed one of its limits to the south, for the latter country was itself formerly one of the finest divisions of the *Camboze* kingdom. Its true limits were the mountains inhabited by savages called *Moi*, and those of the ancient kingdom of *Ciampa*. This country is situated in a long plain between two ranges of mountains on the east and west.

Camboze, from being one of the most flourishing kingdoms of Indo-China has undergone the same fate as all those great empires of Asia of which nothing remain but the name, while *Cochinchina* has been built upon its ruins. For a long period the king of *Camboze* was tributary to the kings of *Siam* and of *Cochinchina*. The king of *Siam* had taken all the country which bordered his kingdom to the west even as far as *Battambang*. The king of *Cochinchina* extended the limits of his dominion to *Chândoe*, a fortified place, situated on the canal of *Hà-tiên*, about three days' journey from the capital of *Camboze*, named *Nam-vang*, by the Cochinchinese, *Penompeng* by the *Cambogiens*, from whence, the Europeans, who have a facility of corrupting names, have made *Columpé*.



The effeminate king of *Camboze* (he deserved this name for his escort was composed of nothing but women) for a long time found himself between two zealous protectors, who, while they were encroaching little by little on his dominions, were always feasting him with the titles of noble and powerful majesty. In a word, the situation of this phantom of a king resembled that of the unfortunate individual in the proverb who sitting between two stools soon found himself on the ground between them. The king of *Cochinchina* always placed near his majesty several mandareens to protect and direct his politics. For a long time this king had no male child, and although in that country the Salic law was not in existence, the Cochinchinese king only waited for the favorable moment to put into execution the project he had privately entertained for many years of adding to his kingdom what little still remained in the possession of the king of *Camboze*. About the end of 1835 or beginning of 1836 the king of *Camboze* died; immediately the king of *Cochinchina* gave the daughter of the defunct monarch in marriage to a Cochinchinese mandareen and proclaimed NAM VANG one of the protectors of the empire of *Annam*, and also of the country in the vicinity of the sea, under the title of Protector (prefect?) of *Gòsat*. In order not to terrify the neighbouring kings and principally so as not to excite the jealousy of the king of *Siam*, the *Cochinchinese* king gave the title of Nu Vuong, that is to say Queen, to the Princess of *Camboze*. If I were asked to say in which kingdom she reigns, as all her dominions have been added to the *Cochinchinese* prefecture? I should answer that I do not know; but in the same manner as small bones are given to amuse children, so sometimes fine titles are given to amuse grown up people. These are my reasons for having only placed the name of *Camboze* in my map and reduced the country into prefectures.

This is what I have done:—now what I have not done is the changing of *Nam Vang* the capital. Has it changed its place? Certainly, and what to us appears so extraordinary is not so to those who know the customs and superstitions of the Indians and of the Indo-chinese. In your journal for September 1837, it strikes me that I gave the reasons for these different changes. About the end of December 1833, this town of *Nam Vang* was entirely destroyed by the Siamese. The king of *Camboze* has had another town built at a short distance from the former one, and on the opposite bank of the same river, but being ignorant of its right position I have not altered it. I may say as much regarding the position of *Saigòn*, in lower *Cochinchina*;—it is no longer in its ancient place. Some day looking at this map, people will say that there are mistakes, but these errors are known and announced so as to enable



persons who visit these parts to rectify the same. In drawing the map of this country I am guided merely by the interests of science and must openly say what I think of the work, and of the ameliorations or changes that I have thought proper to make.

One of the most essential alterations and which I had the greatest hesitation in adopting, was—what do you think?—to change the course of one of the finest and largest rivers in Asia. The present map is altogether different in this respect from the ancient ones. In all the European maps this great river of *Laos* is represented throughout the whole of its course as strait as an arrow until it reaches *Cochinchina*. I think it a decided mistake; I will give you my reasons for thinking so. I was always persuaded that in regard to a geographical map, the same rule holds as for a geographical dictionary;—one copies the maps of another and enlarges it more or less, and adds a few more names, and it is lucky if in thus copying the errors are not augmented. The geographical dictionary of *VOSGIEN* offers an example. For his day it was a very good work; since then new editions have been made, enriched, augmented, improved, &c. and nevertheless the greater part of the original mistakes still remain, and what was really the case in the time of *VOSGIEN*, but has disappeared within the last 50 or 60 years, is not corrected: v. g. the town of *Chandernagore* is always the same;—it is said that a great quantity of velvet, silk, brocades, saltpetre, &c. are bought and sold there: I could give further examples of this, but it would be superfluous.

I return again to the geographical map of *Cochinchina*. I have given to the river which flows through *Laos* a course quite different from that in all the other maps, because the two maps I had with me drawn by engineers of the country gave it this direction. They know the country, they visit it every day and have measured all the windings of the river *Laos* which is also called *Meykon* or *Mecon*. To lay down interior of *Camboge*, *Laos* and a part of *Thon-king*, I have used an ancient and a modern map of the country designed by his majesty's engineers; for the coast I have used a map made by Mr. D'AYOT, a French officer, formerly in the service of his majesty the emperor of *Cochinchina*. I think it the best map for the coasts that I have as yet seen: in truth no one had such a good opportunity, for Mr. D'AYOT's occupations obliging him often to pass and repass this shore, he could make his observations and rectify them often. The knowledge I have had of the greater part of the places of the interior of *Cochinchina* properly called has greatly aided me in placing them on this map. You would probably wish to know if any confidence is to be placed in the map made by these



engineers, and if they were capable of measuring distances and finding the latitude and longitude of places. The different engineers and draftsmen belonging to his majesty with whom I was acquainted were not then conversant with the details of the art; they merely used the chain and could find out the points in the horizon by means of the compass. In drawing their maps they used those made by Europeans which they either reduced or enlarged in scale; then they added the different places omitted or unknown to the Europeans. Although this map is not without errors, yet I think it is and may be, unfortunately for a long period, the best and most detailed that has as yet appeared.

For 200 years a number of Europeans of different nations have inhabited *Cochinchina*, others *Tonquin*, and others again *Camboge*. Some had factories and were occupied with commerce; others were missionaries and attended to the instruction of the infidels and to the relief of the Christians. How happened it that in those happy times, when these strangers were protected and even enjoyed liberty, none of them have given us any knowledge of the geography of the country? About this period the Jesuits at the court of Peking were giving to the enlightened world the most exact and most complete plans of an immense empire. In my opinion if the different kingdoms that I have enumerated had had as their chief a man like CANG HI, who protected the fine arts, we should have enjoyed the same advantage. But to the eyes of an ignorant prince and people he who dared to construct any geographical instruments so as to make observations, might have paid rather dear for such a temerity, either by death or at least by exile. I will give you an example of what I have just said. In the year 1818 or 1819, the officers of a French frigate "*Le Henri*," which was anchored in the river *Hué*, and who had been very well received by the king GIA LONG father of the reigning prince, wished to regulate their chronometers and had come ashore and prepared an artificial horizon. The day after the king having been informed of the preparation of these extraordinary instruments, had called into his presence the two French mandareens Messrs. VANNIER and CHAGNEAU, who were in his service, and said to them in the presence of the assembled council: "It appears that the officers of the frigate are making a map of the country, order them to discontinue their attempt." If GIA LONG, whose sentiments towards Europeans were so different from those of his son, acted in this way, what hope can we have of being better acquainted with the interior of this country so long as things are in this state?

It was a pity that Captain MACLEOD was unable to carry his researches beyond the 3rd degree of longitude. His services would have

been of great use, had he been able to have come down the *Mekong* river from the 18th degree to the 11th of latitude north. But let us hope that what is delayed, is not altogether lost. Captain MACLEOD has opened and cleared the road. Under the present circumstances it appears to me to be the best and only route to be taken; as neither the Siamese nor Cochinchinese will allow Europeans to enter their country to go and visit *Laos*, and much less to prepare instruments to make observations with.

About the year 1770, Mr. LEVAVASSEUR, a missionary at *Camboge*, well acquainted with the different localities, informs us; "that the town of *Columpé*, which some geographers have placed on the western branch of the *Mécon*, is in reality very near to this river, but on another river nearly as large which flows from a large lake from *Camboge*, and after passing *Columpé* enters the *Mécon*." The same person in another place says "after passing *Columpé* we soon arrived at the place, where the river, which flows past the royal town, enters the *Mécon*." Here the bishop of *Canathe* remarked to me that the river that enters *Cochinchina* is one of the branches of the great river, which after having been subdivided in *Cochinchina* enters the sea at two different places; adding to these two the mouth of the *Bassac* is the cause of geographers saying that the *Mécon* enters the sea at three different places: it is as well to add that the ancient geographers made no mistake in placing the three mouths of the *Mécon* in the *Camboge*, for in former days this kingdom extended as far. (*Nouvelles lettres édifiantes*, tom. VI.)

In the days of this missionary, the dominions of the king of *Cochinchina* did not extend so far as the country watered by the western branch of the *Mécon*. It is surprising that the greater part of our geographers have not profited by these observations, and that the route traced out by the ancient geographers should still be followed without trying to amend it. MALTEBRUN says that one can only guess at the right situation of *Lac-thó* which a recent traveller says is situated to the north of *Laos*, between *Tong-kin* and *China*. I have tried to find its situation and I think I have succeeded. From the narrative of the missionaries, this country of *Lac-thó*, which is nothing more than a canton, contains about 1500 inhabitants, and is situated at the extremity of *Tong-kin* towards the west, is dependent of the province of *Thanh-hoa-mgoai*, and is situated on the borders of the provinces of *Hùng-hóa* of *Soutdy* or *Doai* and of *Nam-thường*. I think MALTEBRUN was wrong in only seeing in the *Lac-thó*, the *Laos* by the Chinese name of *Lac-tchoue*.

At present a large country is designated by the name of the kingdom of *Laos*, or more properly *Lao*, because a number of towns or small states bear that name. For instance in the Cochinchinese map there is a great kingdom called *Lao long*; its capital town is near the river, called *Mécon* when it approaches *Camboge*; but near the capital itself this river bears the name of *Ciu long giang*, which signifies, the river of the nine dragons. I think that from the word *Lao long*, the extent of country situated between two chains of mountains and watered by this great river has been called *Lao*. I was unable to place in my map this town of *Lao long* as it appears to be between the first and second degrees of longitude east and about the 22nd of latitude north. I was surprised at not finding this capital in Mr. MACLEOD's map. MALTEBRUN and many others have placed the source of this river in the province of *Yun-nam* in *China*. But I am persuaded that this river flows from the mountains of *Thibet*. In a short time I have no doubt that we shall obtain proof of what I have advanced. It is indicated in the map of *Cochinchina* and the extraordinary inundation of this river about the month of September proves also, that the melting of the ice of *Thibet*, is the cause of its overflowing its banks and spreading its waters over *Camboge* and lower *Cochinchina*, and causing the same fertility as the *Nile* does in *Egypt*. What MALTEBRUN speaks of a traveller having arrived at *Laos* from *China* by descending one of the rivers and crossing a lake, does not prove that the *Camboge* river has its source in *China*; this on the contrary accords exactly with the Cochinchinese map; about the 23rd or 24th degree of latitude one of the rivers, which flows from the mountains of *Ligum-nam*, enters the great river of *Camboge*. This Portuguese traveller must have taken the junction of these two rivers for a lake.

The Dutch ambassador, GERARD VAN WUTHOF visited *Laos* in 1641, and if we exclude LE MARINI whose works I was unable to procure, it is to the Dutch we are indebted for what little we know of *Laos*. They embarked on board small boats at *Camboge*, and were eleven weeks reaching *Viénchau*, the capital of one of the states of *Laos*. In the Cochinchinese map this town is called *Bàn chau*, but the Siamese call it *Vien chau* and I think this its real name. I do not know why some geographers call it *Lanchaing* or *Luntchung*, others *Langyone* which is not a bit better. Others have at a short distance from *Vien chau* added the town of *Sandepara*; I have not mentioned this place because I could find no trace of it in any of my maps. The greater number of the small kingdoms composing the country of *Laos* I have included in the Cochinchinese empire, because I think them all

tributary to that empire. Some pay their tribute in gold, musk, gum, lac, &c.; others again in elephants' teeth, rhinoceros' horns, skins of deer and other animals, aromatic gums, &c. The Cochinchinese sell their silks, but salt is the most profitable substance; formerly this commodity used to be sold for its weight in gold.

The language and customs of the country of *Laos* resemble in a great measure those of *Siam* and *Camboge*. The religion of Buddha is in the same state of veneration as in these two countries, but a few changes have been introduced by the Bonzes. There are in this country a number of idols and Bonzes; one scarcely finds a village without them. Near the residence of the princes there is generally a magnificent temple and a gilt idol of an enormous size. Each prince as he succeeds to the throne has it re-gilt. The custom of burning the dead bodies near it is still kept up, and of preserving the ashes in an earthen vase placed in the temple of the idol. Their Bonzes have however broken the law of abstinence; they leave this part of the rites to their brethren, while they themselves eat indifferently all sorts of meat. They themselves have ordained that they may marry; this is not allowed in *Camboge* of *Siam* and *Cochinchina*, where if they do not wish to remain in celibacy they are obliged to quit the pagoda.

The Dutch who ascended the *Cumboge* river on their way to *Láo*, found this river very broad in some places and very narrow and full of rocks in others. The most remarkable places they saw were *Loim*, *Gockelok*, *Looim*, *Simpou*, *Sombok*, *Sombabour*, and *Baatsiong*. Out of the whole of these I only meet with *Sombok* and *Sombabour* which were formerly towns of *Camboge*. I have not placed either of them in my map, because in the last century the frequent civil wars have caused great ravages, and the constant incursions of the Cochinchinese and principally those of the Siamese have ruined many towns and changed the face of the whole country. A great number of the inhabitants were killed; others again were taken into captivity. The Cochinchinese seeing that a part of these territories was uncultivated, advanced little by little to cultivate a land, the fertility of which was surprising, and at last ended by being the only masters of this part.

The empire of *Anamite*, which at its origin, was nothing more than a small state has become a vast and powerful empire by the conquest of *Ciampee* of *Tong-king* and of *Camboge*; this empire might be compared at its foundation to a small rivulet that becomes larger as different streams enter it. If the geography of this country and of its neighbouring kingdoms has become obscure, it is not, as *MALTEBRUN* says, from its having been treated of by numerous writers who contradict each other,

but owing to the numerous changes that have taken place in consequence of fresh conquests and usurpations. A scientific and clever traveller who would penetrate into these vast and almost unknown countries would render a great service to science.

V.—*On the Reg-Ruwan or moving sand, a singular phenomenon of sound near Cabúl with a sketch. By Capt. ALEX. BURNES.*

In the vicinity of *Cabúl* there is a phenomenon similar to what occurs at *Jabal Nakous*, or the sounding mountain, near *Tor* in the Red Sea. It is called *Reg-Ruwan* or the moving sand, and is thus described by the emperor *BABER*. "Between these plains there is a small hill in which there is a line of sandy ground, reaching from the top to the bottom of the hill. They called it *Khwája Reg-Ruwan*. They say that in the summer season the sound of drums and nagarets issues from this sand." The place has been seldom visited, being in the *Kohistan* or troubled part of the country, but the power of the present chief of *Cabúl* has subdued the rebellious tribes near, and an opportunity was thus afforded us of visiting it, which we did in October last.

The description of *BABER* above given, though it appears marvellous, is accurate; *Reg-Ruwan* is about forty miles north of *Cabúl* towards *Hindu, kosh* and near the base of the mountains. Two ridges of hills, detached from the rest, run in and meet each other; at the apex of this, a sheet of sand, as pure as that on the sea shore, with a slope of about 40° , forms the face of a hill to its summit, which is about 400 feet high. When this sand is set in motion by a body of people, who slide down it, a sound is emitted. On the first trial we distinctly heard two loud, hollow sounds such as would be given by a large drum. On two subsequent attempts we heard nothing, so that perhaps the sand requires to be for a time settled before the curiosity is displayed. There is an echo in the place, and the inhabitants have a belief that the sounds are only heard on Friday when the saint of *Reg-Ruwan*, who is interred hard by, permits! The locality of the sand is remarkable, there being none other in the neighbourhood. *Reg-Ruwan* faces the south but the wind of *Purwan* (*badi Purwan*) blows from the north for the greater part of the year, and has probably deposited it by an eddy. Such is the violence of this wind that all the trees in the neighbourhood bend to the south, and a field, after a few years, requires to be recleared of the pebbles and stones which the loss of soil lays bare. The mountains here are generally composed of granite or mica, but at *Reg-Ruwan* we had sandstone, lime, slate and quartz.



In a late number of the Journal of the Asiatic Society, an extract of a letter from Lieutenant WELLSTEAD of the Indian Navy, described the mountain in the Red Sea, which has also been mentioned by GRAY and SEETZEN. There would appear to be some variation in the kind of sound issued, but both are, I suppose, explained by one theory and that given by Mr. JAMES PRINSEP, regarding *Jabal Nakous*, being merely 'a reduplication of impulse setting air in vibration in a focus of echo.' At all events *Reg-Ruwan* is another example of the phenomenon, and the accompanying sketch of its *locale* may please those interested in acoustics.

Reg-Ruwan is seen from a great distance, and the situation of the sand is so curious that it might almost be imagined the hill had been cut in two, and that it had gushed forth as from a sand bag, though the wind could have brought it together. Convulsions of nature however are exceedingly common in this part of the world. BABBE mentions one to have occurred in his time and in this very plain, so "that, in some places, the ground was elevated to the height of an elephant above its old level, and in others as much depressed." A severe earthquake took place in *Cabûl* six years ago and shocks happen so frequently as twice or thrice in a month. We had no less than three of these on the 14th of December last, and many before and since, but they were all slight. A passing shake, with a rumbling noise, is called "goozur" to distinguish it from "zilzillee" or earthquake, which the inhabitants denominate a motion that is tremulous. A Cashmerian lately asked me to inform him what was the cause of the series of earthquakes that continued daily without intermission for six successive months in *Cashmeer* about four or five years ago. If these reports be true, *Cashmeer* may have been a lake as is generally supposed, or it may have been any thing. The frequency of volcanic action in these countries is deserving of much attention.

VI.—On the *Siah-pôsh Kaffirs* with specimens of their language and costume. By Captain ALEX. BURNES*.

The extreme interest which attaches to the history and condition of the Kaffirs, who occupy the mountainous regions of northern *Afghanistan*, has excited much curiosity, which it is my endeavour to gratify, having

* Captain BURNES in the letter to Mr. Secretary MACNAGHTEN, forwarding this interesting note, writes :—

"I early determined either to attempt in person to enter *Kaffiristan* or to send one of the gentlemen along with me, but the services of all being disposed of else-

just met several Kaffirs in *Cabûl*, who had been captured at an advanced age, and were still familiar with the language and manners of their countrymen. I have also of late seen people both Hindu and Muhammadan, who had visited the habitations of the Kaffirs and have thus had the opportunity presented of hearing what these people thought of themselves and how they were viewed by foreigners. The account of the Kaffirs, given by Mr. ELPHINSTONE, renders it unnecessary to repeat the many details which will be found in his work; my object being to improve our present knowledge and clear up, if possible, some of the existing obscurity.

In speaking of their nation, the Kaffirs designate themselves as the Muhammadans do 'Kaffirs' with which they do not couple any opprobrious meaning though it implies infidel. They consider themselves descended of one KOMKSHAI, and their Muhammadan neighbours, either corrupt the word or, assign them a lineage from *Koreish*, one of the noblest of the tribes of *Arabia*, to the language of which country they further state that of the Kaffirs to be allied. They have no distinction of black and white Kaffirs that I could hear of; and one of the Kaffir informants assured me that his tribe looked upon all as brothers, who wore ringlets and drank wine! They have however no definite idea of the surrounding countries, *Bajour* and *Kuner* to the south being the limits of their geographical knowledge. They have no books, nor is reading or writing known in the nation, so that they have no recorded traditions. Their country has many table-lands some of which extend for fifteen or twenty miles, and on these there are always villages; *Wygul* and *Camdesh* are on one of these plateaus, and eastward of the latter lies the country of the Muhammadans. The winter is severe, but in summer grapes ripen in great abundance.

The words of a young Kaffir, about eighteen years of age now in *Cabûl*, will afford the best explanation of many of their customs. His name as a Kaffir was DEEABUR, as a Muhammadan it has been changed to FUREEDOOM. He fell into the hands of the Muhammadans eighteen months since, by losing his road when passing from his native village of *Wygul* to *Gimeer*, to visit a relative. He is a remarkably handsome young man, tall with regular Grecian features, blue eyes and fair complexion, and is now a slave of the Ameer. Two other Kaffir boys, eight

where, no opportunity has been yet presented of hearing how a European observer would regard that singular race. As there is much curiosity, both on the continent and in our own country, about the Kaffirs, and we are naturally looked to for information regarding them, I have transmitted this paper to Government that his Lordship the Governor General may be pleased to dispose of it as he deems proper."



and nine years old, who came along with him, had ruddy complexions hazel eyes and auburn hair. They also had less beauty and high cheek-bones, but they were still handsome, and extremely intelligent. Their Kaffir names were TEENGEER and CHOUDUR, and that of their mothers RAJMAL and BRAOPAGLY. None of these Kaffirs, nor two others which I saw, had any resemblance to the Afghans or even Cashmerians. They looked a distinct race, as the most superficial observer would have remarked on seeing them.

DEENBUR said that there was no chief of the Kaffirs, but that great men were called *Salmunash*. They do not appear to carry on any combined operations against their neighbours, but they retaliate, when an invasion of their frontier takes place, and are very inveterate against the Muhammadans, and give no quarter to captives. They possess great agility and activity, qualities which their enemies accord to them. Muhammadans seldom venture to enter their country as travellers, but Hindus go as merchants and beggars (*fakírs*) and are not ill used. I met a Muhammadan who had passed into *Budukhshan* and was not molested. In killing their food, the Kaffirs have no ceremonies, they sacrifice cows and goats to DOGHAN, the Supreme Being, particularly at a great festival which occurs in the beginning of April and lasts for ten days. They have idols and know the Hindu god MAHA'DEO by name, but they all eat beef and have either lost their Hindu belief or never had any thing in common with it. They neither burn nor bury their dead but place the body in a box arrayed in a fine dress, which consists of goat skins or *Cashgar* woollens; they then remove it to the summit of a hill near the village where it is placed but never interred. Kaffir females till the ground, and in eating the men sit apart from the women. They have no tables, the dish containing the meal is placed on a tripod made of iron rods of which DEENBUR and his companions made a model for me with twigs. They assemble around this and eat sitting on stools or chairs without backs. They are very fond of honey, wine and vinegar, all of which they have in abundance. They have no domestic fowls, nor is there a horse in their country; wheat and barley are their grains, there is no juwaree. They are very fond of music and dancing but, as in eating, the men separate from the women, and the dance of the one sex differs from that of the other. Both were exhibited to me, that of the men consists of three hops on one foot, and then a stamp; the women place their hands on their shoulders and leap with both feet, going round in a circle. They have a two-stringed instrument and a kind of drum for music.

DEENBUR described the mode of life among the Kaffirs to be social, since they frequently assemble at each other's houses or under the trees which embosom them, and have drinking parties. In winter they sit round a fire and talk of their exploits. They drink from silver cups, trophies of their spoil in war. The wine, which is both light and dark, will keep for years and is made by expressing the juice under the feet into a large earthen jar, described to be of delicate workmanship. Old and young of both sexes drink wine, and grape juice is given to children at the breast. A Kaffir slave girl, who became a mother, shortly after her arrival in *Cabúl*, demanded wine or vinegar after the birth of her child, the latter was given to her, she caused five or six walnuts to be burned and put in it, drinking it off and refusing all the luxuries of *Cabúl*. The costume of the nation is better shewn in the accompanying sketch than by description; a successful warrior adds to it a waist-band ornamented with a small belt for every Muhammadan he has killed. The daughter of such a one also, has the privilege of wearing certain ornaments entwined in her hair, made of sea shells or cowries, which no one can usurp without signal punishment. A Hindu, who was present at a Kaffir marriage, informed me that the bridegroom had his food given to him behind his back because he had not killed a Muhammadan. Enmities frequently arise among them, but the most deadly feud may be extinguished by one of the parties kissing the nipple of his antagonist's left breast, as being typical of drinking the milk of friendship. The other party then returns the compliment by kissing the suitor on the head, when they become friends till death. The Kaffirs do not sell their children to Muhammadans; though a man, in distress, may sometimes dispose of his servant or steal a neighbour's child and sell it.

I asked my oldest Kaffir informant if he regretted the loss of his country and he, at once, replied that their Kaffir customs were best but, here, he preferred those of Muhammad. He had, however, imbibed a taste for *Islam*, and observed that here there was religion and there none. He told me a singular fact of a Kaffir relative of his own, named SHUBOOD, who had been captured and, becoming a Moollah, travelled, under the name of KOROSH, into India, returning about three years ago, to Kaffiristan when he made known many things to the Kaffirs which they had never before heard of: after a short stay, he wished to quit the country but he was not permitted. The names of places which DEENBUR remembered were *Wygul*, *Gimeer*, *Cheemee*, *Kaygul*, *Minchgul*, *Ameeshdesh*, *Jamuj*, *Nishaigram*, *Richgul Deree*, *Kuttar*, *Camdesh*, *Douggul*, *Pendesh*, *Villegul* and *Savendesh*. It is however, believed that all the inhabitants of *Durai Noor*, and other defiles of *Hindu*

koosh north of *Cabúl* and *Julalabad*, are converted Kaffirs, which their appearance and mixed language seem to bear out.

The language of Kaffiristan is altogether unintelligible to Hindus and their *Uzbek* and *Afghan* neighbours; some of its sound, soft labials are scarcely to be pronounced by a European, but the accompanying specimens will illustrate it. They were taken from DEENBUR. The sentences that follow bear, however, an evident affinity to the languages of the Hindu stock. As the Kaffirs have no written character, I give them in an English dress. When in the *Kohistan* of *Cabúl*, near *Punjsheer*, I had an opportunity of meeting some of the people, who speak Pushye, which resembles the dialect of the Kaffirs as may be supposed from their proximity to them, and as will be seen in the annexed vocabulary. Pushye is spoken in eight villages, named as follows: 1 *Eeshpein*, 2 *Eeshkein*, 3 *Soudur*, 4 *Alisye*, 5 *Ghyu*, 6 *Doornama*, 7 *Dura i pootta* and 8 *Mulaikir*, all of which are situated among or near the seven valleys of *Nujrow* (huft dura i nujrow). The Pushyes are considered a kind of Tajiks by the *Afghans*.

I have stated the account which the Kaffirs give of themselves. I received the following additional particulars from a Muhammadan, who had visited four villages named *Kutar*, *Gimeer*, *Deoos* and *Sas*, all of which are beyond the frontier hamlet of *Koolman*; which is inhabited by *Neemchu* Mussulmans and lies north of *Julalabad*. He described the Kaffirs as a very merry race, without care, and hoped he would not be considered disrespectful, when he stated that he had never seen people more resembling Europeans in their intelligence, habits and appearance as well as in their hilarious tone and familiarity, over their wine. They have all tight clothes, sit on leathern stools, and are exceedingly hospitable. They always give wine to a stranger and it is often put in pitchers, like water, at public places which any one may drink. To ensure a supply of it they have also very strict regulations preventing the grapes being cut before a certain day. My informant considered the country of the Kaffirs quite pervious to a traveller if he got a Kaffir to be his security. They have no ferocity of disposition, however barbarous some of their customs appear; and, besides the mode of ensuring pardon already described, he stated that if a Kaffir has killed ten men of a tribe, he can secure forgiveness by throwing down his knife before his enemies, trampling on it and kneeling.

Besides my Muhammadan informant I met a Hindu at *Peshawur*, who had penetrated into the higher Kaffir country, about twenty-five miles from *Chughansurall* where he resided for eleven days: some of his observations are curious. He was protected by a Kaffir and expe-



rienced no difficulties, but he would not have been permitted to go among the more distant Kaffirs : had he attempted it, he either would have been killed or compelled to marry and live for good among them. He was not however convinced of the journey being impracticable. He was kindly treated as far as he went, and admitted to their houses. He saw them dancing and describes the race to be of exquisite beauty, with arched eyebrows and fine complexion ! These Kaffirs allow a lock of hair to grow on the right side of the head, and the Hindu declares they were of his own creed as they knew *ŚIVA*. They had bows and arrows for defence, they pulled the strings of the former with their toes and their arrows had heads like drooping lilies. Their country had many flowers and much shade. Many coins are found in it resembling those to be procured about *Bajour*, and some of which have Grecian inscriptions. The worthy Hindu insisted upon its being a fact that the Kaffirs sold their daughters to the Muhammadans according to their size, twenty rupees *per span* being a fair valuation ! There is certainly no difficulty in procuring Kaffir slaves, and the high prices which are readily given may have induced these poor people, who closely adjoin the Muhammadan countries, to enter upon this unnatural traffic.

But by far the most singular of all the visitors to the Kaffir country of whom I have heard was an individual, who went into it from *Cabúl* about the year 1829. He arrived from *Candahar* and gave himself out, to be a Gubr or fireworshipper and an "Ibrahime" (follower of *ABRAHIM*) from *Persia*, who had come to examine the Kaffir country where he expected to find trace of his ancestors. He alighted in *Cabúl* with the Armenians, called himself *SHUHRYAR*, which is a name current among the Parsees of these days. His hosts used every argument to dissuade his going on such a dangerous journey, but he proceeded to *Julalabad* and *Lughman*, where he left his pony and property, and entered the Kaffir country as a mendicant by way of *Nujjil*, and was absent for some months. On his return, after quitting *Kaffiristan*, he was barbarously murdered by the neighbouring *Hazáras* of the *Ali Purust* tribe ; whose Malik, *OOSMAN*, was so incensed at his countrymen's conduct that he exacted a fine of two thousand rupees as the price of his blood. All these facts were communicated to me by the Armenians in *Cabúl*, but whether poor *SHUHRYAR* was a *Bombay* Parsee or a Persian Gubr, I could not discover, though I am disposed to believe him the latter as he carried along with him "a rukum" or document from the shah of *Persia*. The death of this successful sojourner among the Kaffir tribes is a subject for deep regret, but it holds out a hope that some one may still follow the adventurous example of this disciple of

ZOROASTER, and yet visit the Kaffirs in their native glens. I know not what could have given rise to an identification of the Kaffir race with that of ancient *Persia*, but the mode of disposing of their dead on hills, without interment, but there are certainly traditions all over *Afghanistan* regarding the Gubrs or fireworshippers, and one of their principal cities, called *Gurdez*, in *Zūnnut* south of *Cabúl*, yet exists, which even in *BABER*'s time, was a place of considerable strength.

The country of the Kaffirs has also been entered by many wandering jewellers who pass through it, which brings me to make mention of its adjoining districts and their peculiarities. One of these individuals had visited *Cashgar* beyond *Deer*, and proceeded thence to the town of *Shah Kuttore* under *Chitral* and on to *Badukhshan*, habited as a *fakir*. He always received bread when he asked for it, but could not have, with safety, made himself known. The account of this man's journey is curious as well as what he saw during it. Near a "zyarut" or place of pilgrimage at *Bajour* there is an inscription which, from the specimen shewn to me, I take to be old Sanskrit. About two miles beyond there is another inscription; between the village of *Deer* and *Arabkhan*, there is a third, towards *Cashgar*, where the road is cut through the hill for some yards, the fame of the artificer being commemorated. *Katigiram* is an ancient place a day's march from *Deer*. Two days' journey from *Bajour*, there is a small idol cut in black stone and attached to the rock. It is in a sitting posture, about two and a half feet high, and is said to have a helmet on the head similar to what is seen in the coins from *Bajour*. It may be a Hindu figure for that tribe hold it sacred, but idols are to be dug up throughout all this country and a small one, eight or nine inches high, was brought to me from *Swat* which represented a pot-bellied figure cut in stone, *half seated*, with crossed arms and a hand placed on its head. Such idols are also found at the "tope" in the plain of *Peshawur*, and, whether they represent *BACCHUS* or some less celebrated hero, antiquarians must determine. But to continue the jeweller's rambles. At *Cashgar* he purchased rock crystal (beloor) from the shepherds, who, simple men that they are, believe it to be the frozen ice of an hundred years! In *situ* a maund of it costs twenty rupees and he doubled his outlay on returning by making it into seals and armlets. It is exported to *China* as buttons for the caps of the Mandarins. From *Cashgar* the onward journey was made for lapis lazuli and rubies which he found in *Budukhshan*. Leaving *Cashgar* he crossed the river that passes *Chitral*, and which is here called the water of *Kuner*; in three days he came to a hill called "*Koh-i-núgsan*" or the hill of injury, down which he slid upon the

frozen snow in a leathern shirt and came to a bridge, but this is not on the high road. I was so much pleased with the novel account of his journey, that I prevailed on the man to repeat it and attend to such instructions as I should give him regarding copies of the inscriptions, &c. but he has not yet joined me.

Vocabulary of the Kaffir language.

<i>English.</i>	<i>Kaffir.</i>	<i>English.</i>	<i>Kaffir.</i>
God	Yamrai, Doghan	Wheat	Gum
Sky	Dillú	Barley	Yú
Star	Tarah	Grass	Yús
Sun	Soe	Flour	Bro
Moon	Más	Bread	Eu
World	Dúnyá or doonya	Milk	Zor
Earth	Palál	Cheese	Kila
Water	Aú	Jar	Sha
Wind	Dámá	Pot	Siri
Fire	Ai	Salt	Vok
Lightning	Pulak	Man	Naursta
Thunder	Trankyás	Woman	Mashi
Clouds	Mayár	Son	Dabla
Rain	Wásh	Daughter	Dabli
Snow	Zim	Father	Tálá
Ice	Achama	Mother	Hai
Moist	Ashai	Brother	Bura
Hot	Tapí	Sister	Sosi
Cold	Yoz	Uncle	Kench taulá
Spring	Vastineck	Priest	Deshtan
Summer	Vasupt	Ink	Káchá
Autumn	Shari	Tongue	Jip
Winter	Zuin	Hair	Kech
Kill	Dá	Forehead	Taluk
Plain	Gúlulá	Ear	Kar
Pond	Azá	Eye	Achán
River	Galmulá	Nose	Nású
Canal	Shueláw	Mouth	Ash
Tree	Ushtun	Teeth	Dint
Desert	Ghatadá	Chin	Deli
Fruits	Deráz	Heart	Zudúwán
Green	Yuz	Hand	Chapál pain
Horse	Goa	Finger	Agun
Ass	Ghudá	Nail	Nunchá
Bullock	Ga	Foot	Kur
Cow	• Istriki gao	Cotton	Poché
Sheep	Vami	Wool	Varak
Goat	Vasru	Cloth	Kamis
Dog	Tún	Shoe	Vachai
Shepherd	Pashká	Quilt	Brastan
Herd	Icho	Iron	Chima
Tiger	Se	Silver	Chitta
House	Ama	Gold	Soné
Door	Do	Soldier	Oatah
Window	Dari	Chief	Salmanash
Rope	Utrek	Troop	Katki
Pin	Kakhche	Fort	Qila

English.	Kaffir.	English.	Kaffir.
Wall	Barkan	Five	Pich
King	Pacha	Six	Shu
Bow	Shindri	Seven	Soti
Arrow	Kain	Eight	Osht
Sword	Tavali	Nine	Nu
Shield	Karai	Ten	Dosh
Spear	Shel	Twenty	Vashi
Armour	Jirah	Thirty	(not known only even tens)
Axe	Chavi	Forty	Dovashi
Knife	Kalai	Sixty	Trevashi
Tobacco	Tamákú	Eighty	Chal
One	Ek	Hundred	Chatavashi
Two	Du	Thousand	Hazár
Three	Tre		
Four	Chata		

Questions in the Kaffir Language.

What is your name?	Too ba nam kussoora?
Where is your country?	Eema ba desh akineora?
Where are you going?	Akeený gayish?
In your country do they dance?	Eema ba deshakna natee chaol?
Do you drink wine?	Chookrye piash?
I do not understand.	Yai na piam.
Give me water.	Eeu an as.
Is the road bad?	Poout awaiwa.
Are there bears in Kaffiristan?	Eema ba deshukua broo wa?
How many days' journey from Wygul to Camdesh?	Wygul oshtee kittee wass ka dunooa Camdesh?
Who lives in Shah Kuttore's country?	Shah Kuttore bu deshunaki visheen ust mom?
Muhammadans reside there?	Moosulmannis heen ust mom?
Is there any king in Wygul?	Wygul pucha waist a nuwair?
How many towns are there?	Kitee shuhr war?

Specimens of the Pushye Dialect.

English.	Pushye.	English.	Pushye.
Bread	Aoo	Foot	Payam
Water	Oorgai	Waist	Gamum
Mother	Ai	Breast	Simoom
Wife	Ishterkoom	Belly	Koochun
Son	Pootram	Thigh	Dawaram
Forehead	Tili	Knee	Kareem
Eyebrows	Kash	Fingers	Angoran
Nose	Nost	Ear	Kaiam
Lip	Ooshtam	Hair	Loom
Mouth	Gilamam	Butter	Ghoost
Beard	Darim	Flour	Aboee
Hard	Hustam	Meat	Pe

Questions.

Are you hungry?	Awa tooma?
Are you thirsty?	Tunooma?
The sun is hot.	Soora gurma.
Have you fever?	Pare jech ke?
What is your name?	Name kera?
Where are you going?	Kuro shart ke?
When will you return?	Kima le yai?
Is it snowing?	Lange taroo?

VII.—*Examination of the Inscriptions from Girnar in Gujerát, and Dhauli in Cuttack, continued by JAMES PRINSEP, Sec. As. Soc.*

Sanskrit Inscription, No. 1, from Junagarh.

After the announcement made in the proceedings of the Society, published in the present journal, that the Governor General has acceded to my request for the deputation of an officer to take exact facsimiles of the several inscriptions in *Gujerát* which have turned out to be of so important a nature, it may seem premature or superfluous to continue the publication of the analysis of the less perfect document now in my hands. But it is only in a few uncertain passages that the expected corrections are desired.* The body of the matter is sufficiently intelligible, both in the *Páli* edicts of *Girnar* published last month, and in the Sanskrit inscription from *Junagarh*, which I have chosen for the subject of my present notice.

I should indeed be doing an injustice to Captain LANG who executed the cloth facsimile for the President of the Bombay Literary Society, and to Dr. WILSON himself, who so graciously placed it at my disposal, when doubtless he might with little trouble have succeeded himself in interpreting it much better than I can do, from his well known proficiency in the Sanskrit language; it would, I say, be an injustice to them, were I to withhold the publication of what is already prepared for the press, which may be looked upon as their property, and their discovery, and to mix it with what may hereafter be obtained by a more accurate survey of the spot.

Before, however, proceeding to the inscription itself, I have much pleasure in inserting Dr. WILSON's account of his visit to the place, and of the mode in which the inscriptions were taken down under his instructions. It was printed in the Bombay Christian Spectator, whence the author has kindly extracted it at my request, in a letter first received from Bombay.

Account of a visit to Girnár by the Rev. J. WILSON, D. D.

It was on the 13th of March, 1835, that I visited the *Girnár* mountain. The following is the extract from my journal which you have asked me to send to you.

“ After leaving the Nawáb of *Junágad* (with whom and his darbár I had spent the preceding night in keen, but friendly discussion), I rested for a little, and then proceeded in a *dolí* to the celebrated *Girnár* hill. I found myself at the base of it (the road leads through thick jangal) about day-break. The ascent is very difficult,

and in some places, from the precipitousness of the mountain, rather trying to the nerves. The rock is of granite, containing, particularly near the summit, a large quantity of mica. There is scarcely any vegetation upon it, and indeed from its steepness, no possibility of the formation of a soil. The largest temples are at an elevation, I should think, of about 2000 feet, estimating the greatest height at 2500. They are built of the granite, though some of the steps and staircases are formed of sandstone, from the plain below. They are works of prodigious labour, and are executed in excellent taste. They are at present appropriated by the Jainas; but the most ancient and remarkable of them appear to me from the Dhagob, and other arrangements, to be undoubtedly *Buddhist*. The most remarkable Jaina images in them, are those of *Neminátha*, not much exceeding the size of a man, black and ornamented with gold, and at present worshipped; and *Rishabhdeva*, of a colossal size, of granite, covered with white chunam; and *Parasnátha*. In the inferior parts, there are the images of all the twenty-four *Tirthankars*. There are numerous cells in the courts of the temples, and places adjoining, which were probably formerly used by the priests. At present, the only persons who live on the hill, are the sipáhís who guard the temples, a few *pujáris*, and pilgrims who come to worship, and who may sojourn for a night or two. I was allowed to go through all the temples, and even to enter the shrines, and measure the idols. When I had finished the inspection of them, a large company of Yatis and Banias came to perform their devotions; and as soon as I could command their attention, I preached to them the words of eternal life.....

“ After taking a little refreshment, I proceeded to the temple situated at the *summit* of the hill. Though goodlooking in the exterior, and evidently of *Buddhist*, or *Jaina*, origin, it is very filthy within. In one extremity, there is an uncarved block of granite, with huge eyes and a monstrous mouth depicted upon it, sacred to *Deví* under the name of *Ambamá*. I found a good many people around it, to whom I spoke on the folly and guilt of idolatry. There are two other peaks on the hill, from one of which the Hindus, who get tired of life, throw themselves down in the hope of making a speedy journey of it to heaven. I did not think of visiting them, on account of the difficulty of reaching them. There was, however, a staircase leading to them, as to the peak on which I stood.

“ The view from the top of *Girnár* is one which is not dearly purchased at the expense of ascending it. It embraces the adjoining hills (of granite), and one of which, the *Dhátar*, vies with it in height, and an

immense range of low country extending in all directions, and toward the west, reaching to the sea. There is much jangal on the lower hills; and cultivation, from the want of water, is not very extensive in the low country. Villages appear scattered only here and there.

"I made as quick a descent of the mountain as possible, that I might reach, before the darkness of night settled upon me, the block of granite near *Junágoḍ*, which contains the ancient inscriptions which, though never deciphered, have attracted much attention. I was able to accomplish the object which I had in view. After examining the block for a little, and comparing the letters with several ancient Sanskrita alphabets in my possession, I found myself able, to my great joy, and that of the brahmans who were with me, to make out several words, and to decide as to the probable possibility of making out the whole. The taking a copy of the inscriptions I found, from their extent, to be a hopeless task; but as Captain LANG (of the *Katiawáḍ* Political Agency), had kindly promised to procure a transcript of the whole for me, I did not regret the circumstance."

"I suggested to Captain LANG, a plan for taking a facsimile of the inscriptions. I recommended him to cover the rock with native paper slightly moistened, and to trace with ink the depressions corresponding with the forms of the letters. The idea of using *cloth*, instead of paper was entirely his own; and to that able officer, and his native assistants, are we indebted for the very correct facsimile, which he presented to me, and which I forwarded to you some months ago for your inspection and use. During the time that it was in Bombay, it was mostly with Mr. WATHEN, who got prepared for yourself, the reduced transcript, and with a native, who at the request of our Asiatic Society, and with my permission, prepared a copy for M. JACQUET of Paris. I had commenced the deciphering of it, when you kindly communicated to me the discovery of your alphabet; and I at once determined that you, as was most justly due, should have the undivided honour of first promulgating its mysteries. Any little progress which I had made in the attempt to forge a key, was from the assistance which I had received from the alphabets formerly published in your transcendantly able work, Mr. ELLIOT's Canarese alphabets, and the rigid deductions of VISHNU SHÁSTRÍ, my quondam pandit to whom Mr. WATHEN has expressed his obligations in his paper on some ancient copper-plate grants lately sent by him to England. VISHNU's palæographical studies, I may mention, commenced with Dr. BABINGTON's paper, which I showed to him some years ago; and they were matured under Mr. WATHEN. I mention these facts from my desire to act according to the maxim, *Suum cuique tribue*.

“The rock containing the inscriptions, it should be observed, is about a mile to the eastward of *Junágaḍ*, and about four miles from the base of *Gīrnār*, which is in the same direction. It marks, I should think, the extremity of the *Maryádá* of the sacred mountain. The Jainas, as the successors of the Bauddhas, greatly honor it. They maintain *pinjarápurs*, or brute hospitals, like the Banyas of Surat, in many of the towns both of the peninsula and province of *Gujerāt*; and practise to a great extent the *philopsychy* of the long forgotten, but now restored, edict of ASOKA.”

The rock or large stone above alluded to, appears to contain all three inscriptions. On the eastern side facing the *Gīrnār* hill are the edicts of ASOKA in the old character:—on the western side the Sanskrit inscription which I have selected as my theme for the present occasion; and on the southern side a third inscription longer even than either of the others, but somewhat more modern, and less distinct.

The western inscription, then, is near the top of the stone:—it covers a surface of ten feet and a half in breadth, by five feet in height. The stone is a good deal cut or worn away in two places, but it does not seem that any thing has been lost on the outer edges, the irregularities there visible proceeding from the contour of the stone. Capt. LANG's facsimile is lithographed on a very reduced scale in Pl. XV.

The character is only one remove from the Buddhist alphabet of *Gīrnār*. It has the same mode of applying the vowel marks *e*, *a*, and *o*, in particular to those excellent test letters *n*, *ṇ*, and *m*. The vowel *i* is still formed of the three dots: but I need not more fully dilate upon its peculiarities since I have already inserted the whole alphabet, as No. 3 of the comparative table in last month's Journal. A few also of the principal passages I now subjoin on a larger scale in Pl. XVI. as upon them rests the value with which this inscription will doubtless be regarded in Europe as well as in India, on account of the historical information it is calculated to afford.

Once transcribed into modern Nágari a Sanskrit inscription becomes easily intelligible through the aid of a skilful pandit. In the present instance it has only been necessary to change two or three dubious letters to enable KAMALÁKÁNTA to explain to me the contents of all the continuous passages which still exist on the stone, and it is fortunately not very difficult to imagine from the context what must have occupied most of the spaces now eroded or mutilated.

I have contented myself with a very small copy of the original text, because hereafter it may have, like the *Allahabad* inscription, to be done over again!

Transcript of the Junagarh inscription. No. 1.

1. सिद्धं इदंतटकं सुदुर्गतं गिरिनगरादापाद (15 letters) कपले ?
विस्तारयामोच्छ्रयणैः सन्धिवन्धदृढसर्वपादिकतत्पर्वतपा (श्व)
2. (पा) दप्रतिस्पर्द्धिषु (30 letters) (उ) जावेन कृत्रिमेण सेतुबन्ध-
नोपपन्नसुखविविधवप्रनदीपरि णा (ह)
3. दृढ विधान (35 letters) (वि) नेदिभिरनुग्रहेर्महत्युपचये
वर्त्तते तदिदं राज्ञो महाक्षत्रपस्यआग्रहे (ण)
4. तन्नामः स्वामिचयानस्यधे (34 letters) पुत्रस्य राज्ञो महाक्षत्र
पस्य गुरुभिरभ्यस्तनाम्नरिदाम् वर्षद्विसप्तति त द रेः
5. मार्गशीर्षवज्जलपक्षे (30 letters) सृष्टवृष्टिना पर्जन्येन एकार्णवी
भूतायामिवष्टथिथां—वृतायां गिरेरुर्जयतः सुमलिनीकृतायां
6. पलेशिनीप्रभृतीनांनदीनांअतिमात्रोदृत्रेर्बगःसेतुम (20 letters)
प्रमाणानुरूपप्रतिकारमपि गिरि शिखरतरुवटाट्टालेरुपतल्पदार
शरणोच्छ्रयविध्वंसिना युगनिधनपल
7. शसरे मघर वर्गेण वाय्ववाग्रम थिते सलिले विक्षिप्तजर्जरीकृताव
(14 letters) क्षिप्ताश्च वृक्षगुल्मजलाप्रतानं सुनदीवलधित्युद्वा
टितमस्ति चत्वारि हस्तशतानि विशालतरांण्यायतेन एतावंत्ये
वविस्तीर्णेन
8. पंचसप्ततिहस्तेन—मगाहेन भेदेन विस्तृतसर्वतोयमरुधन्वकल्पे
मतिभ्रंशदृढ (10 letters) स्यार्थे मौर्यस्य राज्ञः चन्द्रगु (मस्य)
राष्ट्रधनवश्येन पुष्यगुप्तेन कारितं अशोकस्य मौर्यस्य तोयवनराजेन
तुषस्तेनाधिष्ठया
9. बलभीभिरलंकृतं तत्कारितया च राजानुरूपरतविधानया तस्मिं
(पादे)दृष्टयासुनद्याविस्तृतसे(तु) (9 letters) ना आगर्भात्प्रभृत्य
विहृतसमुदित राजलक्ष्मीधारणगुणतस्त्वर्बवर्गेरभिगम्य रक्षार्थं
पतित्वेवृतेन स्युन्नेयोच्छासात्युरुषवधनिवृत्तिहता
10. सत्यप्रतिज्ञेन स्रष्ट(तेन) संयामेवभिमुखागतसदृशप्रचुरप्रहरण

वितरणत्वविगुणरि (10 letters) कारुण्येन स्वयमभिगतजनस्यच
प्रणिपत्तीना(मु)पश्रुण्णदेन (2) स्य व्यदमु गरुयादिभिरनुपभ्रष्ट
पूर्वं नगरनिगम

11. जनोपजनस्ववीर्यार्जितानामनुरक्तसर्वप्रकृतीनां पूर्वपराकराव
न्तीनूप व्रजानर्त सुराङ्गश्च (5 letters) वरकुकुरा किराततिषदा
दीनां समग्राणां तत्प्रभाव (7 letters) कामविघयाणां विघयाणां
पतिना सर्वक्षत्राविष्कृत

12. वीरशब्दजातोत्सुकविधेयानामाद्यैधेयानां प्रसङ्गोत्सादकेन दक्षि
णायथपतेस्मातकर्णेर्द्विरपि निर्याजमवजित्यावजित्यसम्बन्ध स्थिर
राष्ट्रानुपालनात्प्राप्तयशसा मा (10 letters) रवि जयनभू
भट्टध्वज प्रतिष्ठापकेन यथार्थहस्तो

13. च्छयार्जितार्जितधर्मानुरागेण शब्दार्थगान्धर्वोपायाद्यानां विद्या
नां महतीनां पारणधारण विज्ञानप्रयोगविपुलकीर्तिना तुरग
गजरथधूर्यासिचर्म नियुद्धदृढ (10 letters) परवललाघव सौष्ठव
क्रियेण अहरहर्दानमानान(न्दिना)

14. विमानशीलेन स्थूललक्षणयथावत् प्राप्तैर्बलिशुष्कभाग कानकराज
त वङ्ग वैदूर्यरत्नप्रचय विस्थन्दमानकोशेन (3) स्फुटलघुमधुर
चित्रतानुशब्द समाधिसरलकृतार्थ नप्रमाणमता
त्मना स्वरगतिवर्ण सारसत्वादिभिः

15. परमलक्षणव्यञ्जनैरुपेत काङ्कमूर्तिना स्वयमटथतो च महाक्षत्रप
नाम्ना नरेन्द्रेण कान्त्या स्वयंवरणमाल्यप्राप्तदाम्ना महाक्षत्रपेण रुद्र
दामा (25) त्र्यंघर्मकीर्तिवृद्धये अपिदयितातुरांघ्रिष्ठित

16. प्रणयकृपाभिः धैर्येण (वर्दजनं) स्वस्मात् कोशान्महताधनैधेन
सुनतिमहताव्याकुलेन त्रिगुणदृढतरविष्टरव्यायामसेतुंविध—
(20 letters) दर्शनतरंकारितमिति

17. महाक्षत्रपस्यानुमतसचिवकर्मप्रभावैरमात्यगुणसमुद्युत्स्थाप्यतेमहा
त्तोद्भटस्यान्वसेफविप्रवरमतिभिः प्रत्यङ्गतभि

18. पुनःप्रतिबन्धनैरस्यार्हेहाभूता सुप्रजासु इहाधिल्लाने पौरजानपद
जनानुग्रहायै ऊयवेन कृत्स्नेन कारितं अपाङ्कृतौघाभिन्नाक्तम्रियु
क्तौङ्कृतौ घाभिनाक्तौम्रियुक्ते प
19. पल्लवापुन कुले प्रमाथेनचेण प्रतिज्ञातेन यथावदार्थधर्मव्यव
हारदर्शनैरनुरागमभिवन्धयता शक्तेन दान्तेन पत्तिवेष्टितेनार्थ
महार्येण
20. अधितिष्ठताधर्मकीर्त्तिं यशंस्ति भर्तुर्भिवर्जयतानुष्ठितमिति ॥

Translation.

(Be it) accomplished! This very impassable bank at the foot of the hill city, (*Girinagara*²) (15 syllables) with wide expansion and with great depth of strong masonry³ carried all along the bottom of the said hill, filling up the interstices or irregularities in even layers up to the height of the bank (30) by a chosen (architect?) the foundations of the bridge being completed most substantially by embanking off in various ways the water (50) by workmen cheered on by kindnesses, and with a vast abundance of materials was in progress. Then the work continued under favor of the *rāja Mahākshatrapa* (the great patron of the warrior class) who was named *Swāmi Chastāna* (and was completed) in the seventy-second year of his son, the *Kshatrapa*, mindful of the lessons of his instructors, the *rāja* named *ARIDA'MA'*⁴ in the dark half of the month of *Mārgairsha* (afterwards) by an immense inundation brought on by heavy rains converting the whole surface of the earth into an ocean, and making a mass of mud of the hill of *Urjayata* (?)—..... by the tempestuous waves of the *Palesinī* river, and its several tributaries, the bridge (was carried away. Subsequently) in conformity with the original design (it was) repaired with blocks of stone from the hill, remedying the difficulties of the passage way with numerous long beams and trees laid across,—and skilfully uniting them..... (A second time) by the force of the waves in a fierce hurricane and flood

1. The same invocation, *siddham*, is used in the *Skandagupta* inscription, Pl. I.

2. The vowels of the word *Girinagar* are wanting, but the name cannot be mistaken, being modern *Girnar*.

3. *सन्धि बन्धि*, the joining or cementation of masonry, is now called by a similar name *jordī*. I suppose the piers or foundations to be intended.

4. *नाम्परदिदाम्न* (sic)—if this is correctly traced it contains a grammatical error in the substitution of *र* for : after *न*. The name might be read *Atri*; or *Rudra*, were the preceding word *namno*. The date may be read either *varshe dvisaptatita* (me) followed by numerals,—or *Ari damni nashte dvisaptati vatsare*, in the 72nd year after the death of *Aridāmā*. As there is a space after *dvi*, *sata* may be also supplied, making the date 270.

(it was) broken down and much damaged, (after which) with stones and trees and piles ^a and massive beams ^b stretched across it was again put into complete repair, with an indestructible embankment having a length of four hundred cubits, and in like manner having a breadth of seventy-five cubits, in a wonderful manner taking out all the water and laying dry the bed of the river ^c by PUPYA GUPTA, the territorial treasurer of rája CHANDRAGUPTA MAURYA, (this) was caused to be done: and by the *Yavana* rája of ASOKA MAURYA, (named) TUSHASPA, it was ornamented with cornice and parapet, and with an artificial canal visible there, over which the bridge also extended, in a manner worthy of the approval of the rája.....(Afterwards) by him, who, being predestined from the womb to the unceasing and increasing possession of the fortunes of royalty, was invited by all classes waiting upon him for the security of their property—to be their king:—who from clear intelligence has not suffered the sacrifice of animal life;—who is faithful to his promises—who is courteous in speech,—who in battle opposed face to face with an equal antagonist and threatening to discharge his weapons,—compassionates his yielding foe,..... who gives hope to those of their own accord repairing to him to beseech for succour.....preserving the ancient customs of the town uninfringed by the proud and insolent;—who is lord of the countries^d of *Avanti*, *Anupa* (?) *Vrija*, *Anartta*, *Surashtra*, *Savara*, *Kukúra*, *Kiráta*, *Tishat* and others, all conquered by his own might, and maintained in their former prosperity, and all their inhabitants both high and low converted into obedient subjects—all these countries, under his majesty (forming one empire) and furnishing every object of desire and gratification:—who is the powerful leader of an army obeying him fondly as one born with the title of a renowned hero;—who, after more than one conquest of SÁTKARNI the king of *Dakshinapatha* by merely a

5. अनुत्पद्धारकरण, the introduction of *Diodora* here is hardly intelligible, perhaps we should read *anutalpát vári sarana ucchraya vidhansin*—the remover of the impediments to the flow of the current from the beams and materials that had fallen into the river.

6. गुल्ललता—the distinction of *golas* and *lattas* in the modern wood market is that the former are unsquared, and the latter, squared timbers.

7. I have given to this obscure passage the best sense in which I think it explicable, as the breadth, 75, cubits could hardly have been that of the bridge itself.

8. Most of the countries enumerated here are to be found in the *Purānas*. *Avanti* is well known as *Onjein*; *Vrija* is the country about *Mathura*; *Anartta* is mentioned with *Comboja*, *Sindhu*, and *Yavana Mārgana*, (*As. Res.* VIII. 339, 341,) and is therefore probably in the Panjáb:—*Kukura* is enumerated in the same list with *Benares*: *Savara* is called a wild tribe in the southeast:—there are three *Kirátas* named—two (*Chanda* and *Rajyu*) in the northeast and one in the south (pp. 339, 41)—*Tishat* may perhaps be read *Toshali* in *Cuttack* of which more hereafter.

threat (of attack), concluded a peace (with him) for the security and protection of his country,. and again set up his royal banner ;— who has a natural taste for exercising and improving the strength of his hand, according to the rules* ;—who is renowned for his skill in the practice of all the celebrated sciences, of grammar, of polity, of singing, of expedients (mechanics ?) and the rest, the theory of which he has gone through and thoroughly retained ;—who powerful in horses, elephants, chariots, oxen, weapons, and armour exceedingly clever in breaking down the strongholds† of his enemies ;—who is every day happy in the bestowal of alms and mercy ;—who is affable in manners ;—whose treasury is abundantly filled with gold, silver, tin, and the lapis lazuli jewel, brought as tokens of his greatness, offered to him as his just and proper measure of tribute ; who (understands) the precise etiquette of (courtly terms,) their sense, measure, sweetness, rarity, who is of correct bodily proportion, excellent in gait, color, vigour, and strength, &c. ; in form and limb of most auspicious aspect ;—who of his own (merit ?) has the title of ‘patron of warriors and king of men ;’—who is crowned with the garland‡ of flowers won in the *Swayamvara* ceremony (or tournament) ;—by this great patron of the warriors (or Satrap) RUDAR DA'MA' zealous for the increase of his religious fame and in kindness and compassion for females and the lame and sick : and with a most liberal expenditure from his own treasury (for the people ?) ;—consenting at once to the petition of the chief citizens ;—the construction of this bridge with threefold strength after due inspection was ordered to be done ;—thus.

By the dignified in virtue, the chief minister of the great Satrap the road was also lined with trees conferring pleasure (on the passers by).—

Further, by him who out of favor to the inhabitants of town and country restored with substantial repairs the excellent condition (of the bridge) to the good subjects of this metropolis,—who made it impregnable to the torrents of water ? by the descendant of the *Pahlavān* tribe, MA VYA, the contractor, who has finished his work precisely on the terms of his estimates and plans, so as to give satisfaction,—the strong

* By inadvertence I have omitted the repetition of the word *arjita* अर्जित at the beginning of the 13th line in the lithograph.

† Reading परबलान्ध, but the text may be read बलान्ध making it ‘destroying his enemy’s force,’ or again it may be परबलान्धवेष्टवक्रियेन, well skilled in diminishing the power of his enemies. (The Nāgari text has been altered thus).

‡ In former times, Hindu maidens chose their favorite among a band of suitors by throwing a garland over his neck. A play on the name *Dāmā* is intended.



man and overcomer of difficulties, surrounded by his overseers (*pattis*),—by him, the establisher of religious fame, and the increaser of the glory of his master, was this work executed*."

Observations.

I have already remarked that in this inscription for the first time we find the name of the great CHANDRAGUPTA the contemporary of ALEXANDER recorded on a genuine monument of antiquity. There can be no doubt of his identity because his family name MAURYA is added, and further the name of his grandson, the no less famous ASOKA immediately follows designated also by the same family cognomen of MAURYA. (See Pl. XIX. for the passages containing the two names.)

On first discovering this important fact and perusing the mutilated fragment with KAMALÁKÁNTA pandit, as well as we could make it out, I thought myself in possession of a record of the time at least of ASOKA, by whose deputy or viceroy the bridge seemed to have been completed. The long string of complimentary epithets which fill up the bulk of the inscription being in the instrumental case, and thus agreeing with the *Yavana rájena* of the upper sentence.

This turns out not to be precisely the case. A considerable period is embraced in the history of the *Girná*r bridge—partly anterior and partly subsequent to the time of CHANDRAGUPTA:—thus it seems originally to have been erected by a prince named SWA'MI CHASHTA'NA a name rather Persian than Indian:—it was then either repaired or more probably completed by his son ARIDA'MA' or ATRIDA'MA' in the month of *Márgasírsha* or *Agrahayana*—in the year 72, but the letters which follow are unfortunately illegible, and we are left in the dark as to the era then in use for recording events.

The bridge was then totally destroyed by an inundation of the river *Paleshini*, a name I cannot discover in the map of *Gujerat*. Thus temporarily repaired perhaps by the inhabitants it was again carried away; and a more thorough reparation was commenced under orders from CHANDRAGUPTA MAURYA by his prefect of the province PUPYAGUPTA, and completed in the reign of ASOKA his grandson thirty or forty years afterwards by his *Greek* officer, for so I think we may understand *Yavana rája*. The brahmanical population of the distant province of *Suráshtra* probably had but little affection for the Buddhist monarch who is not even honored in the inscription with the title of *rája*—being simply styled ASOKA the MAURYA! The name of his Greek employè is not very

* *Anushthitam* अनुष्ठितं, accomplished. The same word is used at the foot of the *Allahabad* inscription—(vol. VI. 978). But I know not how it there eluded the apprehension of the pandit who made me write in lieu of it अवस्थितं 'remaining firm or fixed.'

plain on the cloth; it may be read तुषस्येन—‘by *Tushaspa*’ a name evidently of Persian termination like *Gushtasp*, *Lohrasp*, &c. from *asp* a horse (Sans. *asva*). Were the name written *Tushasva* we might have supposed it a translation of the Greek name *Philippos*, having precisely the same meaning; and we might have argued that some adventurer having from his military prowess obtained service under ASOKA, had added those new provinces to his empire, which we find noticed in his religious edicts, and had at length usurped a considerable share of power to himself; being in fact the very *Yona rāja* whom the Muhammadan historians state to have dispossessed SINSAR CHAND’s grandson. But I am sensible that I have been frequently guilty of running ahead of prudence with my deductions, and I must consequently draw in a little; for it may be possible after all that the word *yavana* does not exist. It is preceded by the letter न which I have rendered नु ‘further’ ‘too;’ but the expletive is somewhat out of place, and some may prefer the reading अशोकस्य नोयवनराजेन, ‘by ASOKA’s rāja (or lord) of the floods and forests.’

To continue my history of the bridge:—after the last repairs although no accident is mentioned, we must conclude that such had occurred, and that the bridge was rebuilt by the prince upon whom the largest share of the eulogistic inscription is lavished. The opening passage may perhaps be recoverable on a careful re-examination of the stone. Towards the close it does indeed mention that on the petition of the inhabitants (backed by female influence?) he strengthened the structure three-fold at his own expense. Now the name of this prince is RUDRADĀMĀ, destined, it says, from his cradle to be elected to the throne,—his title is *Rāja Mahā Kshatrapa* the same as that of ARIDĀMĀ and SWĀMI CHASHTĀN. We may therefore view him as a scion of the old dynasty replaced on the throne after a temporary subjugation of the province by the *Maurya* sovereigns of India proper.

It is curious and most interesting to those whose attention is engaged in the subject to observe how different ancient monuments throw light upon one another and help to their mutual development. The name of RUDRADĀMĀ recalls to our memory the series of *Surashtra* coins described in my journal hardly a year ago. Among the eleven names there distinguished, RUDRADĀMĀ was conspicuous as following just such a break in the line as would be made by the cause above alluded to. Again, the title then read as *Mahā Kritrima*, the elected king, on second examination agrees precisely with the present more palpably developed *Maha Kshatrapa*. On referring to the plate of Mr. STEUART’S coins sent to me by Captain HARKNESS I find that I so read the

word at first and noted it in pencil, but gave it up on the pandit's ignorance of such having ever been a title in use. Had I possessed at that time a comparative alphabet to consult, I should immediately have perceived that the right hand twist at the foot of the *k* (see pl. XIX) did not *then* denote as it does now the vowel *ri*, which was formerly turned in the contrary sense; but that it was the cerebral *sh* subjoined to the *k* (forming *ksh*), exactly as it occurs on the *Junagarh** inscription. The *p* also deceived me, being more pointed than the same letter in the word *putra*; but on examination of the coins in my possession I find it generally rounded off as *U*, and never crossed below as the *m* (*X*). (See the plate.)

The word चक्षप : *kshatrapas*, although wholly unknown as a sovereign title to modern Hindus, and not to be found in their books, is familiar to the reader of the Grecian history of ancient Persia, with merely a softening of the initial letter, as ΣΑΤΡΑΠΗΣ, *Satrapa*, the prefect of a province under the Persian system of government. I do not believe that the etymology of this name has ever been traced. It is called a Persian title, but the Persian dictionaries only contain ستراب *Satrab*, as an obsolete term for the governor of a province, without explanation of its origin. In Sanskrit it signifies the ruler, feeder, or patron of the *kshatra* or military class; and now that we know the ancient language of Persia east of the Euphrates to have been a near dialect of the Sanskrit, we may conclude that *Satrapa* had the same signification in *Ariana*. It is not for me in this place to speculate on the purport of the term in the Persian polity, but it is a fact well known that the effeminate Persians at a very early period were in the habit of governing their numerous tributary provinces by mercenary troops. The same system, and the same denomination of *Satrap*, was adopted and retained by the Macedonian conqueror, both when Greek and native officers were employed: and instances are frequent enough of the *Satraps* assuming to themselves independence and a regal title.

The *Satrapies* of the ancient Persian monarchy are not supposed to have extended across the Indus. If in ALEXANDER's time this limit was first transgressed, it was not long before the Bactrian Greeks or the Parthians made themselves masters of *Sindh*, *Cutch* and *Guzerat*†. The present inscription may incline the learned to conclude that *Surashtra* was before then one of the *Satrapies* of the empire, from the name of CHASTAN, the *Satrap*, who is stated to have first erected the bridge, and who must have preceded CHANDRAGUPTA. RUDRA, VIS-

* I have before remarked that this town seems called after the Greek prince, Yavanagada.

† See J. A. S. vol. VI. page 385 for VINCENT's authority on this subject.

WA, and others of the list are more Indian in sound. It is remarkable that in the long string of epithets applied even to RUDRADĀMA the chosen *Satrap*, there is none which bears the slightest allusion to Hindu mythology; while on the other hand the coins of the whole dynasty bear an emblem which we have hitherto considered either of Mithraic or of Buddhist import. The name *Jinadāma* (wearing *Buddha* as a necklace) is decidedly Buddhistic; and the epithet applied in the inscription to *Rudradāma*,—‘who from right persuasion never put any living creature to death’—proves that RUDRA’S opinions were at any rate influenced by the proximity of the important Buddhist establishment at *Girnār*.

The style of prose eulogy employed by the composer of the inscription puts us much in mind of our old friend, the *Allahabad* column. It has its corresponding list of countries conquered and equitably ruled; but few of the names are, as might be expected, the same in the two. *Avanti* or *Ujjayani*, and *Vrija* (if the latter name be correctly read) are of the most importance as implying that the elected kings of the *Sāh* family, or the Satraps of *Surāshtra* as we may now more properly call them, had acquired dominion over all the central portion of India, driving back the *Magadha* sovereigns, (who had previously spread their hands to the farthest west,) into their own Gangetic limits. The other places *Anartta*, *Kukura*, &c. are probably provinces to the northwest, out of India proper. One other name however deserves our particular attention; the king of the *Dakhan* (*Dakshinapatha*), who was twice threatened with an invasion, and brought to sue for peace. His name is SĀTA KARNI, the same which occurs several times in the lists of the *Andhra* kings extracted by WILFORD from the *Bhāgavat*, and other *Purānas*. It is a patronymic, from *शतकर्ण* ‘the hundred-eared’ which was doubtless the name of the founder of the family: and SĀTAKARNI was probably the surname of all the line, though not repeated every where in the versified enumeration of the *Purānas*.

The locality of the *Andhra* dominion has hitherto been as uncertain as the period of its sway. WILFORD says in one place that the *Andhra* princes ‘made a most conspicuous figure on the banks of the Ganges for above 800 years*’;—again that *Andhra* and *Koshala* (near *Kalinga*) are used synonymously by some Hindu authors:—again that SRI CARNA DEVA took the title of king of *Tri-kalinga*, or of the three shores, to the east and west and south of India†. From our inscription we perceive that the general term of *Dakshinapatha* agrees well with the latter definition, and we may rest content with denoting the *Sātakarnis* as kings of the *Peninsula*.

SAURASHTRA COINS.



Further, as to their age, we find one of the name contemporary with RUDRADĀMĀ who followed ASOKA (we cannot say at what precise distance.) WILFORD, brings them much lower down, from the third to the sixth century after Christ, in order to square the last of their name, *Pulomarchi* or *Puliman*, with the *Pulomien** of the Chinese.

He is forced to confess however that there were *Andhras* at the beginning of the Christian era, when, says PLINY, 'the *Andaræ* kings were very powerful in India having no less than 30 fortified cities, an army of 100,000 men and 1000 elephants†.'

We must therefore consent to throw back the *Andhras*; and, instead of requiring them to fall into a general and single line of paramount Indian kings as WILFORD would insist, let them run in a parallel line, along with the lines of *Surāshtra*, *Ujjain*, *Magadha* and others,—individuals of each line in turn obtaining by their talent, prowess or good fortune a temporary ascendancy over his neighbours: thus at length we may hope to fulfil Captain TOP's prophecy,—“let us master the characters on the columns of *Indrapreshta*, *Poorag*, and *Mewar*, on the rocks of *Junagarh*, at *Bijollie* on the *Aravulli*, and in the Jain temples scattered over India, and then we shall be able to arrive at just and satisfactory conclusions (in regard to Indian history)‡.”

As an atonement for leading my readers into this long digression, I now present them with an engraved plate of all the varieties of the *Surāshtra* group of coins yet found. There is one new name added through the diligence of Lieut. E. CONOLLY. The rest are already known, but I subjoin their corrected readings for the satisfaction of my numismatical friends. The fact of their having a Grecian legend and head on the obverse is now explained; and the date of their fabrication is determined so far that we may certainly place some of the early reigns in the second and third centuries before Christ: to what later period they descend we may also hope to ascertain through the means of other coins which will come to be described along with the third in-

* Quere. Is not *Brahman* written with this orthography in Chinese?

† The name *Sāragan* given in the *Periplus* as of a sovereign that had formerly reigned at *Kalliēna* (near *Bombay*) has some resemblance to *Sātakarni*, but I will not build upon such uncertain ground.

‡ TOP's *Rājasthān*, I. 45, he gives a curious derivation, by the way, of the name of *Junagarh*:

“The ‘ancient city’ *par éminence*, is the only name this old capital, at the foot of and guarding the sacred mount *Gīrnār*, is known by. ABUL FAZL says, it had long remained desolate and unknown and was discovered by mere accident. Tradition even being silent, they give it the emphatic name of *Juna* (old) *gurrh* (fortress). I have little doubt that it is the *Asildurga* or *Asilgurrh* of the *Grahilote* annals; where it is said that prince ASIL raised a fortress, called after him near to *Gīrnār* by the consent of the DABI prince, his uncle.” (See note to page 345.)



scription from *Junagarh*, as soon as we obtain a correct facsimile of it. I may here so far satisfy curiosity as to state that this third inscription, the longest and in some respects the best preserved, though from the smallness and rudeness of the letters it is very difficult to decipher,—is in a more modern character—that allotted to the third century after Christ—or the GUPTA alphabet: and that in the opening lines I find an allusion to SKANDA GUPTA one of the GUPTA family, whose name has also been found upon a new series of the *Suráshtra* coins. The words are ... कीर्त्ति विगुण नृपतिः स्कन्दगुप्तः प्रयुक्तीः चतुर.....(vide Plate XIX.)

We shall thus be able to string together by means of the inscriptions and coins of ancient *Suráshtra* a continued series of names and dates from the time of the *Maurya* dynasty to that of the *Gupta* dynasty of *Canouj* which terminates the catalogues of the *Puránas*.

Dates too did I say?—Yes I am in hopes of adding even actual dates to the series, for I have been fortunate enough to light upon a clue to the ancient forms of the Sanskrit numerals, and to discover their presence on the very series of *Suráshtrian* coins to which I have been just alluding. But here again I must solicit a little patience, while I describe the grounds of this new assertion.

§ On the Ancient Sanskrit Numerals.

The most ancient mode of denoting number in the Sanskrit languages, as in the Greek and Latin, was by the use of letters in alphabetical order. This system we find prevalent in all ancient Sanskrit works, as well as in the Páli, the Tibetan and other derivate systems. There do not indeed appear to be any numerals peculiar to the Páli. In their sacred records, the words are always written at length; they have also the symbolical words of the Sanskrit astronomical works, and what is called the *Varna sankhya*, or numeral classification of the alphabet. The numerals now employed in *Ceylon*, *Ava*, *Cambodia*, *Siam*, have hardly the slightest affinity to one another.

When this system was exchanged for that of the decimal or cipher notation does not appear to be known, or to have been investigated by the learned. Up to the ninth or tenth century of our era, the Nágari numerals extant on numerous monuments do not differ materially from those now in use.

In the Gupta class of inscriptions, as far as I know, no numerals had as yet been found until I noticed some doubtful and unknown symbols on the *Bhilsa* monument. In the Buddhist pillar inscriptions the dates where they occurred, were uniformly expressed at full length.

A few months ago, I was engaged in transcribing and reading with my pandit, some copper-plate grants supposed to be of the third century, found in *Gujerát* by Dr. BURN, whose beautiful copies of them, I

Sanskrit Numerals.

1 2 3 4 5 6 7 8 9

Modern Devanāgarī	१	२	३	४	५	६	७	८	९
Devanāgarī of 10 th century	१	२	३	४	५	६	७	८	९
Bengali, modern	১	২	৩	৪	৫	৬	৭	৮	৯
Assamese coins 17 th cent	১	২	৩	৪	৫	৬	৭	৮	৯
Nepalese coins ditto	१	२	३	४	५	६	७	८	९
Kāshmirian, from an ancient Manuscript	१	२	३	४	५	६	७	८	९
Tibetan	༡	༢	༣	༤	༥	༦	༧	༨	༩
Burmese	၁	၂	၃	၄	၅	၆	၇	၈	၉
Ceylonese	௧	௨	௩	௪	௫	௬	௭	௮	௯
Karnāta and Telūga	೧	೨	೩	೪	೫	೬	೭	೮	೯
Pāli letter numerals in the Burmese character	၁	၂	၃	၄	၅	၆	၇	၈	၉
Initial letters { ancient	၁	၂	၃	၄	၅	၆	၇	၈	၉
{ modern	၁	၂	၃	၄	၅	၆	၇	၈	၉
Arabic numerals	1	2	3	4	5	6	7	8	9

Ancient Numerals on Copperplate Grants.

N^o 1. Kāra, D^r Burn. in words, संवत् ३९४ (Samvat 394), repeated in figures "संवत् ३९४"

N^o 2, in words and figures ३८० (380) - N^o 3. ३८५ (385).

N^o 4 D^r only in figures सं ३८५. N^o 5, ditto J.A.S.W. 477. सं ३८५

N^o 6. Ditto ... सं ३८५ = Sanvat 375? or 30 ardha pau.

Bhilsa Inscription N^o 7. J.A.S.W. 452. ३८५ (385) ७९? Bhadraba.

Do N^o 8, second, less perfect. ३८५ (385) ७९? ११५

Numerals on the Satrap Coins of Surashtra.

Silver coins, 9 = ३८५ 10 = ३८५ 11 = ३८५ 12 = ३८५ 13 = ३८५

Copper do 13 (Stacy) ३८५ 14 (Conolly) ३८५

Lead do 15 = ३८५ 16 = ३८५ 17 = ३८५ many without date as

ANCIENT NUMERALS restored

१ २ ३ ४ ५ ६ ७ ८ ९

hope shortly to make public. In one of these, the date was entered at full in the words संवत्सरे शतत्रयेचतुर्नवत्यधिके 'in the *samvat* year three hundred and ninety-four.' A few lines below this, the word ॥ संवत्सर ॥ again occurred, followed by three symbols ॥ १३५, which must of course be numerals : they are more exactly copied in Plate XX; and according to the preceding statement should be 394.

On a second plate in the same manner, the date in words was संवत्सर शतत्रयेशित्यधिके कार्तिक शुद्धपक्षदश्यां, 'in the 15th of Kartik, *samvat* 380,' and in figures सं १०० कार्तिक शुद्ध ५५.

On a third plate the date in words was शतत्रयपञ्चाशित्यधिके कार्तिक पौर्णमास्ये, 'Kartik full moon, *samvat* 385' and in figures १००५ and ५५ as before : in both of which the same symbols occur for 1, 3, 8, and 5 ; and the latter figure, much resembling the ancient letter *na*, but slightly altered was again observed on a fourth plate sent me by Dr. BURN from Gujerāt, which did not contain the date in words, thus, सं १५५.

Much pleased with this new train of discovery, I turned to Mr. WATHEN's paper in the fourth volume of the Journal, in which I remembered his interpretation of the date on a similar grant by ŚRĪ DHARA SENA, as being in the ninth year of the *Valabhi Samvat* of TOD, corresponding with A. D. 328. Here the translator had no written entry to guide him, nor had he any clue whereby to recognize the numerals which followed the abbreviated *Samvat*, thus, १३ which we now perceive to be 300, + some unknown unit. I immediately wrote to Mr. WATHEN and to Dr. BURN, requesting them to examine carefully the dates of all other plates in their possession, and from them in return I received all the examples which are inserted in the accompanying plate. From the whole series combined we may venture to assign a certain value to the 1, the 3, the 4, the 5, the 8 and the 9.

The last of these, I could not but remember as the symbol on one of the *Bhilsa* inscriptions which led to so many conjectures a year ago. In the form of ⊕ we have evidently our ३, or the year 9, but the three strokes at the side would appear to modify its value, or to be themselves a numeral, perhaps the ०. Then, as we find the preceding ५ has not a dot above it, we may use that also as a numeral and understand the whole ५३० as 2 or 6 or 790 according to the value to be hereafter assigned to ५.

Again in the second *Bhilsa* inscription (page 458, pl. XXVI.) the figure 3 with another is perceived, following the word सम्वत् and

the last letter may possibly be a numeral also. In Mr. OMMANNEY'S Multay inscription, two numerals of the same class were observed (VI. 868.)

It may also be remembered that in my notice of the *Suráshtra* coins, vol. VI. p. 389, I remarked behind the head on the obverse, besides a legend in corrupted Greek characters, a few strange marks not at all like either Greek or Sanskrit alphabetical characters; to these I now redirected my attention and was happy to perceive that they too were in fact numerals of the same forms and of equal variety with those on the copper-plate grants.

I have arranged at the foot of Plate XII. those specimens in my own cabinet on which the figures are best developed.

Upon bringing the subject to the notice of Dr. BURN at *Kaira*, he wrote me that he had already remarked these symbols on another very numerous class of old coins found in the ruins of the *Gujerát* towns. They are made of lead or tin; and have on one side, in general, a bull, and on the other the triple pyramid which forms the central symbol of the silver hemidrachmas of the *Suráshtra* satraps. I have not found space to introduce them into the present plate, but fig. 22, will serve as a representative of the whole class. It is a finely preserved copper coin most opportunely discovered and presented to me by Lieut. E. CONOLLY, from *Ujein*. It bears the numerical symbols $\Upsilon\lambda$ very distinctly marked under the symbol \mathfrak{B} . Among the facsimiles of the leaden coins, I find $\Upsilon\mathfrak{M}$: and $\Upsilon\mathfrak{B}$: with barely room for a third figure, but in one the reading is $\Upsilon\alpha\zeta$ so that we may venture to place them all in the fourth century of some yet unknown era.

Among the silver coins the variety is greater: fig. 23, which I find by the reverses is a coin of RUDRA SÁH, has the year $\Upsilon\mathfrak{M}\mathfrak{G}$.

Another fig. 26, also of RUDRA SÁH, has the third figure well developed $\Upsilon\mathfrak{M}\mathfrak{I}$.

Fig. 24, of the son of RUDRA DÁMÁ (the repairer of the *Girná*r bridge), has apparently the numbers, $\Upsilon\mathfrak{B}^\circ$ or 390.

Fig. 12, from *Ujein*, RUDRA SÁH II. has $\Upsilon\Upsilon\theta$ the first 3 rather faint. In a coin of VISWA SÁH, given to me by Mr. WATHEN, similar to fig. 9, of the plate, the date is $\Upsilon\theta\zeta$.

Fig. 25, is a well brought out date $\Upsilon\alpha$: on a coin of ATRI DÁMÁ, son of RUDRA SÁH, in my cabinet: the coins of the same prince in Mr. STEUART'S plate, and one also of AGA DÁMÁ shew traces of the same second figure.

Now, although the succession of the Satraps or SAH family, as given in last volume, page 338, rests but on slender evidence in some points ; still where the names of father and son are consecutive, we may rest with confidence on it in fixing the priority of such of our newly found numerals as occur on them respectively.

We must for the sake of perspicuity, repeat the list with the addition of the dates as far as we have traced them :

Regal Satraps of Suráshtra.

- 1 K. RUDRA SÁH, son of a private individual SWÁMI JINA DÁMÁ
- 2 K. AGA DÁMÁ, his son.
(Here the connection is broken.)
- 3 MK. DÁMÁ SÁH, (no coins.)
- 4 MK. VIJAYA SÁH, son of DÁMÁ SÁH.
- 5 K. VIRA DÁMÁ, son of DÁMÁ SÁH.
- 6 MK. RUDRA SÁH, son of VIRA DÁMÁ, *Samvat*, $\theta^? \mathbb{M}$ and Υ :
- 7 K. VISWA SÁH, another son of ditto, ditto, $\Upsilon \theta \mathbb{E}$
- 8 K. RUDRA SÁH, son of M. K. RUDRA SÁH, ditto, $\Upsilon \Upsilon \theta$
- 9 MK. ATRI DÁMÁ, son of ditto, ditto, $\Upsilon \alpha$:
- 10 MK. VISWA SÁH, son of ATRI DÁMÁ.
(Here the connection is broken.)
- 11 MK. SWÁMI RUDRA DÁMÁ, (no coins.)
- 12 MK. SWÁMI RUDRA SÁH, his son, *Samvat*, $\Upsilon \mathbb{M}$ and $\Upsilon \mathbb{B}$.

The two last names being insulated from the rest were on the former occasion placed by me before DÁMÁ SÁH, because the form of the letter *j* seemed of the earlier type. Since then, I have learnt that the turning up of the central stroke of the *j* constitutes a vowel inflection. I now therefore bring the two SWÁMIS to the foot of the list on the plea that all figures must have precedence of the 9 or \mathbb{B} . In the same manner we may now argue that θ precedes Υ , this figure α and the latter again \mathbb{M} .

To aid in prosecuting my inquiry, I begged KAMALÁKÁNTA, to point out any allusions to the forms of the ancient numerals, he might have met with in grammars or other works ; but he could produce but very few instances to the point. One of these is to be met with in the *Kātantra Vyākaraṇa*, a work of BELÁLA SENA's time, where the conformation of the four is alluded to in these words,

स्तन युगाकृतिश्चतुरङ्गो विसर्गश्च

Like a woman's breast is the figure four, and like the visarga ;

and the visarga is further explained by a passage in the *Tantrā-bhidhāna*, a more modern work still, dated in 1406 *Saka*.

द्विठः स्वादानलप्रिया तकारेणवर्णमाख्यात् विसर्गं

The name of visarga is 'two *ths*,' 'Swāhá,' *anālapriya*,—because the visarga has the form of the letter *th* (O).

This merely alludes to the modern form of the 4, which exactly resembles the Bengali visarga.

The oldest allusion he could furnish, was the following on the form of the 6 from PINGALA'S *Prākṛit Grammar*.

बगुरुवङ्कडुमत्तो अषोलङ्घोद सुदण्कक अलो

"The *guru* mark* is like the figure 6, crooked, and of two strokes : it is called also *lahu* (*laghu*), it is also denoted by one stroke or one minute."

This passage evidently alludes to a form of 6 more resembling the Bengali than the present Nāgari type.

Another channel through which I was in hopes of tracing the ancient ciphers was the numerical system of those Indian alphabets which bear most resemblance to the forms of the earlier centuries, such as those of *Cashmīr*, &c. In the specimens of these, which I have introduced into the plate for the purpose of comparison, it will be seen that the three has certainly considerable affinity to our ७; while the one, and five approach nearly to our १ and ५. There is a faint resemblance, in others of the group ; but some again are totally changed.

The Tibetan numerals (of the seventh century) do not yield much more insight into the matter. They are, we may say, one remove backwards from the Bengali numbers—the 1, 2, 3 and 5, only agreeing better with the Nāgari forms. The 1, however, agrees exactly with one of the ancient figures on the coins, and this has been my inducement to consider the latter as 1.

Upon regarding attentively the forms of many of the numerals, one cannot but be led to suppose that the initial letters of the written names were, many of them, adopted as their numerical symbols. Thus in the Tibetan 5 ५, we see the ५ or *p* of the same alphabet, the initial of *pancha*. The same may be said of the Cashmīrian, and the modern Hindi form ५ and indeed in some measure of the ancient forms ५ and ५.

Again the Tibetan 6 ६, resembles the *ch* ४ of that alphabet : the Ceylonese form is exactly the *ch* of its alphabet ; and there is an equally marked connection between the Nāgari ६ and the ६ *chha*, which is the common name of this numeral.

* i. e. The mark used to denote a short quantity in prosody and in music, which is formed ६.

On the same principle in the absence of other argument, we may set down the \aleph of our new series as 7, being identical with \aleph the initial of *sapta*.

The modern 3 \mathfrak{z} , has no small likeness to the *tr* of the older Nágari alphabets: nor does the 2 differ much from *d*; but these resemblances may be more ideal than real; for by an equally facile process of comparison they might be both derived from the Arabic figures, as might other members of the series, as 7 and 8, in the Nágari of the Nepalese coins particularly.

The 9 of the Tibetan, Bengali, Nipalese and Burmese numerals is precisely the *l* of the ancient alphabets. Now in the allotment of the vowels numerically, the *li* represents 9; but it would appear far-fetched to adopt one insulated example of derivation from such a source.

The 9 however of the *Suráshtra* grants and coins is totally of a different order. It resembles the four-petalled flower of the *bél* or Indian jasmine,—and in the copper plates we find it absolutely represented with a stalk, (see No. 1, of Pl. XX.) Seeking the name of this flower in Sanskrit, *mallika*, the pandit reminded that one of its synonymes was *nava mallika*, which the dictionaries derive from *nava* ‘praised, excellent’—but which may now receive a much more natural definition as the ‘jasmine flower resembling the figure 9.’

It is further to be remarked that in many of the ancient systems, separate symbols were used to denote ten, twenty, &c. in combination with the nine units severally. The curious compound figure seemingly used for the 1 of 15 in the two cases quoted above \mathfrak{z} may be of this sort:—indeed it somewhat resembles the Ceylonese ten (see Plate.) On this point however I can offer no demonstration, nor any other argument, save that we have already more than nine symbols to find accommodation for as numerals.

With all these helps, and analogies, I have endeavoured to arrange the nine old numerical symbols in their proper order in the accompanying plate, so as also to meet the conditions of the succession of dates on the coins of the satraps of *Suráshtra*. In this I am far from being confident of having succeeded; but having once as it were broken the ice, we may soon hope for a more perfect solution of the curious problem, through the multitude of new, or rather old, monuments which seem to emerge from oblivion just at the time they are wanted, under the united efforts of the Society’s associates in central India. Once having proved that it was customary to date the coin of that early period, we must direct attention again to the monograms on the Bactrian, Indo-Scythic and Canouj coins, which may turn out to be also used numerically.

The numbers then which form comparison with foreign and modern native series as well as the other considerations above given, I have finally adopted are as follows :—

1	2	3	4	5	6	7	8	9	10 ?	0
१ [?]	० [?]	३	४	५	६ [?]	७	८	९	१०	:
varieties ?	३	२	८	५				५	३	

• Before concluding this division of my theme, I may be expected to explain in what era the dates of the *Suráshtra* coins can be expressed, so as to place SWÁMI RUDRA DÁMÁ, whom we perceive in the inscription to have followed at some reasonable distance ASOKA himself, at the end of a fourth century or about the year 390. If the *Vikramáditya* or *Samvat* be here intended, he will fall after the close even of the Arsakian dynasty of Persia, when the Greek was disused, and the arts had greatly deteriorated; when moreover the form of the Sanskrit character had undergone considerable change. If we take the Seleucidan epoch, which might have been introduced in the provinces tributary to *Syria*, RUDRA will have reigned in A. D. 89. If lastly out of deference to ASOKA's temporary supremacy in the *Gujerát* peninsula, we take the Buddhist era, then 543—390 will leave 153 B. C. about a century after ASOKA, and in every respect the period I should like to adopt were it possible to establish any more certain grounds for its preference. The most perplexing circumstance is that the grants of Balabhî dynasty are also dated in the third (or fourth) century—and that it is hardly possible to consider their dominion as contemporary with those of the satraps. For them indeed we must adopt the *Vikramáditya* era, whatever may be determined in regard to the one before us.

Explanation of Plate XII.

Fig. 1, (from STEUART's plates,) a silver hemidrachma.

Fig. 11, a coin belonging to MULLA FERROZ of Bombay.

Fig. 13, a coin found by Capt. PRESCOTT at *Palhanpur* in *Gujerát*, presented to me by Mr. WATHEN.

These three coins have all the same legend, but No. 11 exhibits the application of the vowel *i* in two places, which the others want: the legend thus completed is,

Rajna Kshatrapasa Rudra Sáhasa, Swámi Jina Dámáputrasa :

'Of the Royal Satrap, Rudra Sáh, the son of the lord Jina dāmá.'

The title of JINA DÁMÁ 'votary of BUDDHA', is a better reading than *Jina dāmá*, subduer of that sect, formerly adopted.

Fig. 2, (from STEUART's plates,) a coin of AGA DÁMÁ, son of RUDRA SÁH.

Rājna Kshatrapasa Aga Dāmna, Rājna Kshatrapasa Rudra Sāha putrasa.

Fig. 3, (ditto) a coin of VIJAYA SÁH, son of DÁMÁ SÁH.

Rājna Kshatrapasa Vijaya Sāhasa, rājno mahā Kshatrapasa Dāmā Sāha putrasa.

Fig. 4, (ditto) a coin of VIRA DÁMÁ, son of DÁMÁ SÁH.

Rājna Kshatrapasa Viradāma, rājno mahā Kshatrapasa Dāmā Sāha putrasa.

Fig. 5, (ditto) a coin of RUDRA SÁH, son of VIRA DÁMÁ.

Rājno mahā Kshatrapasa Rudra Sāhasa, rājno Kshatrapasa Viradāmā putrasa.

Another coin apparently of this RUDRA, in my possession, fig. 26, has a date which may be read 283, I find I have two coins of this prince, (one given me by Mr. F. STAINFORTH.) Colonel STACY has also two of the same; they may be known by the epithet *mahā*.

Fig. 6, (ditto) a coin of VISWA SÁH, son of RUDRA SÁH.

Rājna Kshatrapasa Viswa Sāhasa, rājno mahā Kshatrapasa Rudra Sāha putrasa.

Fig. 7, (ditto) a coin of ATRI DÁMÁ another son of RUDRA SÁH; behind the head, but more distinctly in my own coin (fig. 25) is the date 360?

Rājno mahā Kshatrapasa Atri dāmna, rājno mahā Kshatrapasa Rudra Sāha (?) putrasa.

This name is the nearest approach to the ARI DÁMÁ of the inscription, who, however, was the same of SWÁMI CHASTÁNA. Colonel STACY has also a coin of ATRI DÁMÁ.

Fig. 8, (ditto) of the same prince introduced as shewing more clearly the name of his father.

Rājna Kshatrapasa Atri.....trapasa Rudra Sāha putrasa.

Fig. 9, a coin of VISVA SÁH, son of BHATRI DÁMÁ.

Rājno Kshatrapasa Visva Sāhasa, rājno mahā Kshatrapasa Atri Dāmā putrasa.

This coin has a date, which may be read 323, in which case it must precede the last two—the father's name was before read as ATRI DÁMÁ, whence the misplacement.

Fig. 10, a coin of SWÁMI RUDRA, son of SWÁMI RUDRA DÁMÁ, in the obverse, the figures 39 (perhaps 390). Another has 385.

Rājna mahā Kshatrapasa Swāmi Rudra Sāha, rājno mahā Kshatrapasa Swāmi Rudra Dāmā Sāha putrasa.

Fig. 12, a new name, or new as to the second title; RUDRA SÁH, son of the great Satrap RUDRA DÁMÁ was presented to me by Lieut. E. CONOLLY, from Ujein.

Rojna Kshatrapasa Rudra Sāhasa, rajna mahā Kshatrapasa, Rudra Dāmd (?) Sāha putrasa.

This is the only coin which bears the name of the repairer of the bridge, and that rather dubiously as the father of the prince who coined the piece. It has a date on the obverse which I have interpreted, 390 like the preceding.

Fig. 15, a silver coin belonging to MULLA FEROS of Bombay, similar to Mr. STEUART's coin, fig. 3.

Rājna mahā Kshatrapasa Vijaya Sāhaja, rājna maha Kshatrapasa Dāmā Sāha putrasa.

Fig. 14, a copper coin, unique, discovered by Lieut. CONOLLY at Ujein, and placed in my cabinet through his kindness. Obverse, a bull, with a marginal legend apparently Greek, some of the letters seeming to form the word *Basileus*, &c.

Rajno maha Kshatra (pa).... the remainder of the legend lost.

The letters are larger and better formed on this than on the silver coins. Most copper coins of the series exactly resemble the silver ones with a head on the obverse. Col. STACY has a good specimen, of which the obverse (fig. 27) has apparently a date.

Fig. 16. In this silver coin found in *Cutch* in 1837, and presented to me by Mr. WATHEN, the central emblem of the reverse is changed to a kind of trident: the legend is also altered from that of a Satrap to one of a paramount sovereign:

परम भानुवीर राजाधिराज श्री कुमारगुप्त महेन्द्रस्य

Parama Bhanuvīra Rājādhiraja Śrī Kumara Gupta Mahendrasya.

"Of the paramount sovereign the heroic king of kings ŚRĪ KUMARA GUPTA MAHENDRA."

Fig. 17, another of the same kind, having the same Sanskrit legend, but behind the head the Greek letters may be read ONONOT, or RAO NANO? it was presented to me with the last by Mr. WATHEN.

Figs. 18, 19, 20 and 21, have the same symbol, but the workmanship is very much deteriorated. The legend on them all has at length been deciphered by the collation of several specimens presented to me by Mr. WATHEN, and found in various parts of *Cutch*, *Kattywār* and *Gujerāt*, by Capt. PRESCOTT, Capt. BURNES, Dr. BURN; as well as the few inserted in the plates of Mr. STEUART's coins*.

परम भगदत्तम राजश्रीस्कन्दगुप्त क्रमादित्य

Parama Bhagadata ma (ha) Rāja Śrī Skanda Gupta (vi) kramaditya.

But as I have a larger assortment of the coins of the same king, to introduce into a future plate, I will postpone further mention of this series for the present.

* By a letter from Professor WILSON I learn that Mr. STEUART's Plate is to appear in the Royal Asiatic Society's Journal; but that it had time to journey to India and back before the outcoming number went to press! I regret I am thus deprived of the power of adding to this note the observations of the learned in England on the Surāshtra coins.

VIII.—*A letter to Dr. HELFER, on the Zoology of Tenasserim and the neighbouring Provinces. By Assist. Surg. J. T. PEARSON.*

In compliance with the commands of the Right Honorable the Governor General, I have much pleasure in offering the following remarks upon the points to which your attention may be usefully directed during your expedition to the coast of *Tenasserim* and the neighbouring provinces. And I do this the more readily, that I am satisfied, from my own experience, the hints of a long resident in a country may almost always be of use to a new comer in the prosecution of his researches into its natural history.

The first grand problem of natural history, beyond doubt, is the discovery of a new species of man. This, however, the naturalist will be fortunate beyond all others who is enabled to offer any but negative evidence to solve. But it is not impossible, perhaps not improbable, that some variety but little known, or which we are totally ignorant of may exist among the forests of the country; in like manner as the *Papuas* of *New Guinea*, and the *Shau halla* of *Abyssinia* live wild and remote from other men*. Accurate observations upon any portion of the human race are valuable, especially upon those who are little known to their civilized brethren.

In the next order of mammalia, the *Quadrumania*, a wider field will be open before you. Many unknown species or varieties of species are probably to be found in the forests with which those coasts are covered; and the discovery of another specimen of the gigantic ape, found by Captain COMEFOOT in *Sumatra*, and described by the late Doctor ABEL in the *Researches of the Asiatic Society*, may be made. This animal seven feet in height, would be valuable to the naturalist, and a well preserved specimen the greatest ornament of any museum.

Among the *Cheiroptera* any species of the genera *Galeopithecus* and *Pteropus* which you may meet with, will very likely be new, and consequently well worthy of preservation, and, indeed, the chances are, that in this family the greater part of the species on the coast of *Tenasserim* are altogether unknown.

At *Malacca* there is said to be a *Hedgehog* with pendulous ears: but the species is not well authenticated. If it really exist at *Malacca*, it will also, I should think be found in *Tenasserim*.

In the order *Rodentia* the researches of the naturalist will, it is probable, be richly rewarded. An animal, somewhat between a *mole* and a *rat* in form was found by Doctor RICHARDSON, I imagine in no very

* I believe Dr. HELFER has actually done what is here pointed out, by discovering a new race in the jangals of *Tenasserim*.

great scarcity, for he mentions two specimens as having been among his collections, but which he unfortunately lost. He states that it is called *poe*, by the Burmese; that the head is large and round, like an otter's; the cutting teeth like a rat's; feet slightly webbed, somewhat resembling in appearance, though not so strong as, the *moles*, with fur exactly like the *moles* but larger in the staple, and, as he thinks, even finer; that it is little larger than an English *mole*, and burrows with great rapidity. Dr. RICHARDSON further says, that, there are two kinds of the same animal, one being longer and covered with harsher hair than the other. As the animal is probably a new one, and the two kinds he mentions distinct species, it should be sought for and described, and specimens procured. The *squirrels* of that country probably bear a resemblance of those of the Islands of the Eastern *Archipelago*, of *Arracan*, *Assam*, and the lower ranges of the mountains of continental India; but some new ones must be met with. I have lately had one pointed out to me as an inhabitant of *Assam*, by Dr. McCLELLAND. He described it, as a very large black squirrel; much larger than the *Sciurus maximus*; and he states, that it is an inhabitant of *Baugmaurea* in *Upper Assam*; from which place he has given it the specific name of *Baugmaria*. I am not sure if Dr. McCLELLAND brought a specimen with him, but I rather think he did; and I am almost sure he has described it; nevertheless the arrival of other specimens is desirable, and they may be procured, it is likely, in the countries you are about to visit: as may also various species of flying squirrels, whether of the genus *Sciuropterus* or *Pteromys*.

Of the *Pachydermata*, the *elephant* and *rhinoceros* seem to be common in the provinces to the north and east of *Tenasserim*; and the *Malay Tapir* or that of *China* if there be such an animal, may also be met with. Of late a question has been raised as to the existence of the *Hippopotamus* in the rivers of India. Lieut. TICKELL of the 31st Regt. N. I. has stated, that while out with his regiment against the Coles, in 1833, he received intelligence of a large animal, said by the natives to be amphibious; and which from the description they gave him, he believed to be the *Hippopotamus*. If this be so, that animal may be found in our eastern Provinces; at all events, it is desirable to ascertain the existence, or probable non-existence of an Asiatic *Hippopotamus*. Reasoning from analogy the point is very doubtful; for if the *Tapir* of the east and south *America*, fill the place of the *Hippopotamus* of *Africa*, in the list of *Pachydermata*, then we have no reason to expect it here; but, on the other hand, the zoology of *Africa* is too little known to allow us to conclude, that the *Tapir* does not also exist upon

that continent: and if so, the *Hippopotamus*, or some analogous species will probably be discovered in *Asia* and *America*.

But one animal, though infinitely less in size than the *Hippopotamus*, is perhaps quite equal to it in point of importance; and may admit of a fanciful analogy in its habits. I allude to the *mole* the well known dweller under the earth, as the *Hippopotamus* is the dweller under the waters. The *mole* in its varieties seems to be common in most parts of Europe, though it is said not to be found in Ireland, and to be scarce in Greece, while its congeners *Chrysochlorus* and *Condylurus* inhabit the *Cape*, and *North America*. But as far as I am aware, no example of it occurs in *Asia*, within the limit of the tropical rains. It is possible this ignorance may be owing to a want of research; my own journeying in India having been confined to a small portion of *Bengal*, *Behar* and *Orissa*; where I may almost venture to say the *mole* does not exist. But I have made many inquiries of men likely to have observed it if present; whose marches have been extensive, and whom I have requested to inquire into the subject. Among these Ensign PHAYRE of the 7th Regiment N. I. has travelled through a great part of India from *Midnapore* to *Goruckpore*, the *Terai*, the kingdom of *Oude*, and *Assam*; and he informs me that he never met with, or heard of this animal, or any of its affinities, though he inquired of intelligent natives of those countries, and made careful observations himself. This is also confirmed by Dr. McCLELLAND, and Lieut. TICKELL, and by Mr. BENSON of the Civil Service, whose researches into the molluscos animals of India are well known. It will therefore be an object worth inquiring into, whether or not the *mole* or its affinities, is a native of the countries you are going to visit.

The *Chlamyphorus truncatus* of *South America*, in habits somewhat analogous to the *mole*, seems to have in others an affinity to the *Armadilloes* of the same continent. If, as has been said, it take the place of the *mole* in the tropical regions of the west, it is not improbable that some animal having an analogy, or perhaps an affinity to, it, may be found in the east. In like manner, as you are aware the *Pangolins* of this country take the place of the *Armadilloes* and *Ant-eaters* in that, and the animal which forms the genus *Orycteropus* at the *Cape*, where, as I before said, the place of the *mole* is filled by the genus *Chrysochlorus*.

To return however to the *Pachydermata*: Ensign PHAYRE during his residence in *Assam*, met with a single specimen of an animal which appears to unite the genera *Sus* and *Dicotyles*, possessing the incisor

teeth of the hog, and the molar teeth of the *Peccary**. It was without tail, and although a female, no mammae were discoverable, while the vulva was so with difficulty. The hair was exceedingly coarse, much more so than that of the hog generally is; the eyes strongly resembled those of that animal, the ears more rounded than his, and deeply seated in a kind of groove in the head. The height was about $10\frac{1}{2}$ inches, and the length from the tip of the tail to the vent $22\frac{1}{2}$ inches, measured in a straight line. It is to be regretted that the feet of this animal did not accompany the skin; but, as it is, there are sufficient grounds to conjecture the existence between *Sus* and *Dicotyles*. It was shot at *Bish-nath* in central *Assam*, where it was discovered among some long grass, in which it ran, and from which it could not be driven: in this respect differing altogether from the manners of the hog, when similarly hunted.

While at *Maulmain*, the same gentleman was informed of the existence of a black tiger. This may be the *Felis melas*, which has been supposed to inhabit the *Island of Java* only; and which Mr. TEMMINCK according to LESSON, for I am at present unable to consult TEMMINCK's monograph of the family†, believes to be a variety of leopard. Its discovery in a new locality is to be desired.

The wild cow is also a native of *Tenasserim*. The species may be the same as the *Bos frontalis* of *Sylhet*. Of other *Ruminantia*, deer are met with in great numbers, and probably new species, of their kind, and of the antelope may be discovered. Mr. PHAYRE was also told of a goat with one horn, resembling the celebrated unicorn (it may be of fable); a hint worth following up, for should there after all be no such animal, yet it is very likely some species will be discovered whose peculiarities gave rise to the story.

Of herbivorous *Cetacea*, the *Halicore* or *Dugong* is known to be a native of the seas of our southeastern provinces: and specimens of this animal would be valuable in a museum. Of piscivorous *Cetacea*, various species are also inhabitants of those seas, and probably new ones may be discovered, should you have the means of searching after them. The *Chinese*, *dubious*, and *black Dolphins* (*Delphinus Sinen-*

* After this letter was written and sent to Dr. HELFER I have been able to examine minutely the dental system of this specimen; and find that the last molars are present in the jaw though yet undeveloped, thus making the molars the same in number as those of the hog. The specimen may nevertheless be a distinct species though it cannot form a separate genus.

† I have since seen this monograph as given in the *Zoological Journal*, according to which M. TEMMINCK states, that young have been found in the leopard's lair, one black and the other of the usual color.

sis, dubius et niger), are possibly there, if any where; as is also the *Oxypterus Rhinoceros*, a species, like them, not well authenticated.

The *Birds* of *Tenasserim* appear in some respects to resemble those of the *Islands*, and of the continent of India. But the *Dodo*, called by SWAINSON the rasorial type of the *Vulture* family, and supposed by him to belong to the African races, may possibly be found there: and, if so, I need not point out the honour which will belong to the discoverer of this long contested species. The *Vultures* and *Eagles* of that country are but little known so that researches after them must be rewarded by the discovery of new or rare species. Birds of the genus *Buceros* are there in perfection: the *Rhinoceros Hornbill* the most striking; and the *Concave Hornbill* (*Buceros Homrai* of HODGSON) the largest, being natives of the country. The *Cassowary* (*Casuarus Emu*, of some authors, the *Struthio Casuarus* of LINNÆUS) may perhaps be met with. Among the *Psittacidæ* are many species; some perhaps, intermediate between those of New Holland and India. *Gal- linaceous* birds abound in southern *Asia*, and in the *Islands*, and many rare, and no doubt some new species will be brought to light by a diligent inquiry after them. Among these the beautiful *Columba Zoæ*, an inhabitant of New Guinea, may extend to the coast of *Tenasserim*; the magnificent *Argus Pheasant* is supposed to be found there; and the same may be expected of many other species in this, the most important to us of all the families of the feathered race. Wild poultry should be particularly sought after, and living specimens of them and of the various species of *Pheasants* procured.

As objects of curiosity the *Esculent swallow*, its nest, eggs, and young should be sought after. Mr. PHAYRE presented to the Asiatic Society, nests which he brought from *Tenasserim*. He also heard that the breeding of adjutants takes place there: a fact it would be well to ascertain as well as its manner: and various species of that beautiful family the *Crimyrides* the humming birds of the east, are there to be met with.

The other *Vertebrata*, reptiles, and fishes, of that country are so little known as to give a fair promise of almost all that are caught being new species. Of the *Saurian Reptiles* the flying lizard (*Draco volans* of LINNÆUS) was brought from thence by Mr. PHAYRE, and presented to the Asiatic Society, and Col. BURNEY, Political Resident in *Ava*, presented me with several specimens he brought from *Pegue*. To the latter gentleman I am also indebted for a curious species of *Chelonian reptile*, a tortoise with a tail, as long, or longer than the body, which

seems to be new. But, as I before said, almost every reptile and fish of the *Tenasserim* coast must necessarily be so.

In the *Invertebrata*, a still wider field opens before the enterprising naturalist, in the seas, and on the coasts you are about to visit. The *Cephalopodous* and *Pteropodous Mollusca* may be said to be unknown. The terrestrial and fluviatile *Acephalous*, and *Gasteropodous* sections of the same class are equally so. So extreme is the ignorance of naturalists of the Indian animals of this class, that one of the most eminent English writers in a late work expresses his surprise that the rivers of the east should have produced but six or seven species of shells, while those of *America* are known to contain upwards of 150. In my cabinet there are not less than 28 species of fluviatile shells, 20 of which I have found in the tanks and nullahs in the neighbourhood of Calcutta, and in the river *Hoogly*, a fact sufficient to prove the fault is not in nature.

In marine *Mollusca* the rarest, and most beautiful, genera are natives of our Indian "narrow seas" as well as of the Indian ocean. The genera *Conus*, *Voluta*, *Harpa*, *Scalaria*, *Dolium*, *Venus*, *Isocardia* and many others are to be found there, rich in species, which require only a careful collector to bring them to notice. Many species of the genus *Patella* and its congeners from the coast of *Arracan*, were presented to me by Mrs. HALHED. And, not to dwell upon this part of the subject, we may venture to say, that by a careful dredging for marine, a diligent search for terrestrial and fluviatile shells, and by hanging out a tow line on your voyage for Pelagic mollusca, you will be able to make a splendid collection of new genera, and new species in this most beautiful branch of natural history.

Of the *Crustacea*, *Arachnida*, *Insects*, and *Zoophytes* upon our coasts, our ignorance is more than equal to what it is of the *Mollusca*, while to attempt to enumerate even the genera you will meet with, would extend this paper beyond all reasonable limits. Besides, my remarks must be for the most part merely conjectural, and you will, of course, gather all you meet with, and particularly inquire after any curious in themselves, or useful in medicine and the arts. Among the former the phosphorescent *Pennatulæ* are natives of the Straits of *Malacca*; but whether of the European species or not, I am not informed. Of the latter, some species of *Cantharidæ* are met with, in numbers sufficient to be used in blistering; and other insects may be known to the natives of real, or fancied, specific virtues: if so, such should be inquired after: I may also mention the *Cochineal insect* (*Coccus cacti*, LINN.) which some think may after all be found in India, though from its place

being apparently filled by another species* of the same genus, I have little hope of your discovering it.

With regard to the internal parts of animals; those of *Vertebrata* should be preserved, as well as the animals themselves of those *Invertebrata* which are provided with a shell. Of the importance of these in systematic classification you are well aware.

The little time I can command must be my apology for not entering here upon the subject of the preservation of your specimens. All I know, however, about it is fully detailed in a paper I published last year in the Journal of the Asiatic Society; a copy of which I have the pleasure to annex. In that paper you will find the method I have been induced, by the experience of several years in this climate, to recommend, and which has been practised in my own cabinet, and in the museum of the Asiatic Society, with the most perfect success.

In conclusion, permit me to congratulate you upon an appointment which promises so fair an opportunity of distinction to yourself; and such great advantage to zoological science.

IX.—*Mode of Manufacture of the Salumba salt of Upper India, extracted from a Report by C. GUBBINS, Esq. C. S.*

The *Noh Mehal* situated below and to the east of the *Mewat* hills, and between two jheels, that of *Kotela* to the south and that of *Chundainee* to the north, comprizes 12 villages,

<i>Chundainee,</i>	<i>Baeet</i>	<i>Bas,</i>
<i>Noh,</i>	<i>Selumbah,</i>	<i>Boutka,</i>
<i>Khairlah,</i>	<i>Salaheree,</i>	<i>Eldbur,</i>
<i>Mulub,</i>	<i>Ferozpore,</i>	<i>Murara.</i>

The area of these villages is about $39\frac{1}{2}$ square miles.

The salt is made by solar evaporation from well water, exposed in pukka vats or reservoirs of an average of $3\frac{1}{2}$ cubits deep, 70 cubits long and 40 cubits broad. These reservoirs are built in sets of six, and are filled from wells, one of them is chosen which is always kept full from the remaining five, while these again are refilled from the well as often as they empty.

Two years is the usual time for the first collection of salt (this is however often retarded or accelerated by a heavy or scanty fall of rain, during the wet months): when a red scum begins to appear on the surface of the water fresh bushes are thrown in, chiefly of thorny plants, such as the Keeker, Jhoud, Joankur and the Joasa plants, and by the

* Further reflection has led me to think the *Sylvestre*, or *C. Tomentosus* is a variety of and not a distinct species from the *C. cacti*.

time that the bark decomposes the salt has completed its crystallization.

The pits last, without requiring repair, for about six years; and yield salt every year after the first produce.

The following is an average account of expense and produce.

Produce of first 3 years		Expence.	
from outlay,.....mds.	1,500	Outlay for 6 pukka reservoirs at 50 } per each.....	300
4th.....	830	Expence of drawing water for 6 yrs. } at 25 Rs. per ann.....	150
5th.....	830		
6th.....	830		
Mds. of 92 Sa. Wt.... 3,990		Sa. Rs.... 450	

The salt is stored without any care or trouble, a pit is dug as close to the salt pans as possible averaging 8 cubits deep and*— diameter, into this the salt is thrown; tenacious clayey earth is then spread over it and the outer surface of the pit raised slightly higher than the surrounding ground.

X.—*Proceedings of the Asiatic Society.*

Wednesday Evening, 2nd May, 1838.

The Honorable Sir EDWARD RYAN, President, in the chair.

Dr. CHAS. HUFFNAGLE, proposed at the last meeting, was elected a member of the Society.

H. V. BAYLEY, Esq. C. S. was proposed by H. T. PRINSEP, Esq., seconded by Sir E. RYAN.

Lieutenant C. B. YOUNG, Engineers, was proposed by the Secretary, seconded also by the President.

Letters from Dr. C. J. MACDONALD, M. C. OMMANNEY, Esq. and Lieut. H. BIGGE, acknowledged their election.

Establishment.

The Secretary announced that Mr. KIRTOE's appointment to the survey of the new line of dâk road to *Bombay*, had left the curatorship and librarianship vacant, whereon

Mr. ALEXANDER CSOMA, KÖRÖSI, was unanimously elected Librarian, on the arrangement formerly offered him.

After some discussion as to the best mode of conducting the management of the museum, it was proposed by Professor O'SHAUGHNESSY, seconded by the President,

That Mr. GEORGE EVANS, be appointed Curator on the same allowance as was granted to Dr. PEARSON.

The Secretary further stated that the repairs of the house, which he had intended to have committed to Mr. KIRTOE's care, now required a professional superintendence, when it was determined to employ Mr. ROWE of SHERIFF and Co.'s establishment.

Library.

A letter was received from Dr. JOHN REDMAN COXE, Prof. Mat. Med. Univ. Pensyl. forwarding the following publications in which he had been engaged at different periods, for presentation to the Society. Some of them had previously been presented through the late Dr. HUNTER.

An inquiry into the claims of HARVEY to the discovery of the circulation of the blood.

* The diameter is always proportioned to the quantity of salt to be stored.

Philadelphian Medical Museum, vols. 1, 2, 3, 4, 5, (the first out of print.)

The emporium of arts and sciences, conducted by Dr. COXE, Philadelphia—1812-13. Nos. 1 to 12 forming two vols.

Practical observations on vaccination—*by the same.*

Æsculapean Register. 1824—*by the same.*

Observations on combustion and acidification, Pamphlet, Philad., 1811.

Observations on a letter from Dr. N. CHAPMAN to Dr. W. B. TYLER on cholera. Philad. 1833.

Some observations on the Jajap plant.

An introduction to solid Geometry and to the study of chryystallography by N. J. LARKIN, M. G. S. London, 1820.

Appeal to the public from the proceedings of the Trustees of the University of Pennsylvania.

A letter from J. VAUGHAN, Esq. librarian of the American Philosophical Society was read, forwarding the following works.

Darlington's Flora Cestrica, or description of the flowering and filicoid plants of Chester county Pennsylvania.

American Almanac and Repository of Useful Knowledge, 1838.

Notice of the Academy of Natural Sciences of Philadelphia by Dr. HARLAN—*presented by the author.*

The following were also presented :

The proceedings of the Bombay Geographical Society, for February 1838, *forwarded by the Society.*

Radde-n-din-musalmani or refutation of Muhammedanism, by the Rev. J. WILSON, D. D. Bombay, 1836—*by the Author.*

Proceedings of the Agricultural Society—*by the Secretary.*

Colonel MACLEOD, V. P. Chief Engineer, presented GREGORY's Highland and Isles of Scotland.

Dorje-ling, a compilation of all the official information, respecting the capabilities of that station, as a Sanatorium—*by H. V. Bayley, Esq. C. S.*

KIRBY and SPENCE's Entomology of Insects, 2 vols.—*presented by W. Cracroft, Esq. Museum of Antiquities.*

Lieutenant-Colonel STACY, submitted for inspection and temporary deposit in the Society's Museum, a female image procured at *Muttra*; supposed to mark an epoch in Hindu sculpture, on which subject a note by the proprietor was read.

Captain A. CUNNINGHAM, presented two fragments of sculpture procured by him in his journey to *Simla*; one of them bears the following date. मंत्र ११८३ वैशाख वदि ४ रवि दिन—the name of the maker of the image is worn and illegible.

On the top of this fragment are two feet of a female with bangles.

The other fragment (in mottled sandstone, is of DEVI holding a child (GANES) in her lap.

The Secretary read the following reply from the Secretary to the Governor General, relative to the further examination of the antiquities of *Junagarh* and *Girinagar* in *Gujerat*.

To J. PRINSEP, Esq.

Secretary to the Asiatic Society.

SIR,

I am directed to acknowledge the receipt of your letter, dated the 25th ultimo, to the address of the Right Honorable the Governor General, and in reply, to transmit for your information copy of a communication this day made by me under the instructions of His Lordship, to the Acting Chief Secretary to the Government of *Bombay*, to depute a qualified officer for the purpose of taking a facsimile of the inscriptions alluded to, and generally, to collect all information which can be had regarding them, as suggested by you.

I have the honor to be, &c.

(Signed) W. H. MACNAGHTEN,

Secy. to the Govt. of India, with the Govr. Genl.

Simla, 18th April, 1838.

To L. R. REID, Esq. *Acting Chief Secy. to the Govt. of Bombay.*

SIR,

I am desired by the Right Honorable the Governor General to forward to you for the purpose of being laid before the Right Honorable the Governor in Council

of Bombay, the accompanying copy of a letter to the address of His Lordship from Mr. J. PRINSEP, Secretary to the Asiatic Society, dated the 28th ultimo.

2. I am directed at the same time to express the wish of His Lordship, should the Right Honorable the Governor in Council be aware of no objection to the measure, that an officer qualified for such a duty and interested in it, may be deputed for a limited period without loss of allowances, and with power to incur some reasonable amount of contingent expense, to take a facsimile of the inscriptions alluded to, and generally, to collect all information which can be had regarding them, as suggested in Mr. PRINSEP's letter.

3. It will be observed that the names of three officers have been indicated by Mr. PRINSEP as being peculiarly well qualified for the duty in question.

I have the honor to be, &c.

(Signed,) W. H. MACNAGHTEN.

Simla, 18th April, 1838.

Secy to the Govt. of India, with the Govr. Genl.

By permission of General COURT, the facsimile of a circular copper-plate on its way to M. JACQUET of Paris was exhibited; also drawings of two coins of *Undopherres* or *Gondophares* of new types, in which the letters of the name were very distinct.

The circular plate is a kind of primer, containing the Nāgarī Alphabet, arranged, the vowels in the centre and the consonants in their several classes around, with the letter *Sri* in a cipher, and the Buddhist invocation नमो अरहन्ताय *namo Arahantam*, between each compartment.

The margin contains a family pedigree in three lines, in a kind of vernacular of which the following is a literal transcript.

श्रीजसकीरतिः संवत् १६८१ कातिगसुदि ५ गुरुवार काद्यासवे
माथुरावाले पुकरगणे. तत्पदेतदरक्त श्रीगुणचन्द्रः तत्पदेतदारक्त श्री
सकलचन्द्रः तदारक्त तत्पुत्र २ प्रथमपुत्रसंगही तुलसुदास. द्वितीयपुत्र
संगही शुरहन्त्र तत्पदे तदारक्त मोहडसैण तदास्त्रावेगोइल गोत्रेसुनाम
वास्तव्यसगहीते जयालु तत्पुत्रद्व २ प्र. पुत्रचंचलदास. द्वितीयपुत्रधर्म
दास. संगही तुलसी दास तेन इटजंत्र सिद्धचक्र साकरमितकर्मक्षयाथ
हास. सगहातुलसी दासस्थनाथादी गामलही ॥

Prosperity, glory and fame Samvat 1681, in the light half of Kartik, 5th, Thursday. *Kādyasingha* (?) native of *Mathura* in *Pushkara gaon* (?) in his succession was *Sri Guna Chandra* whose successor was *Sri Sakala Chandra*; his successors were two sons, the first own son was *Tulsidas*;—the second son *Surahantri*,—his successor was *Mohan Sain*, of whose descent, in the *Gohila* tribe, a village was named after him *Japōlu*. He had two sons, 1st *Chanchala dās*, the 2nd *Dharma dās*; by whom this *jantra* or *Siddha chakra* (magic circle) for the reward of the virtuous acts of *Tulsi dās* is made, and on the margin the names of *Tulsi dās*'s ancestry are written.

Literary.

A letter was received from Mr. Sec. H. T. PRINSEP, forwarding by desire of the Hon'ble Mr. Ross, President in Council, a Pushto or Pan-jābī Grammar, prepared by Lieutenant LEECH, of the Bombay Engineers.

The Secretary explained that the Committee of Papers had determined that the two former grammars (*Belochki* and *Baruiki*) by the same intelligent gentleman were not adapted for publication in the *Researches*, but would be more useful as a separate volume.

Resolved that with reference to the Pushto Grammar of Dr. CAREY, already in existence, the works be referred to the librarian to consider on the mode of their publication.

The President in Council likewise presented for such notice as the Society might think fit, a paper on the *Siahposh Kaffirs*, with specimens of their language and costume, by Captain A. BURNES.

[Printed in the present number.]

Dr. A. BURN, presented facsimile of a fourth copper-plate grant found at *Kaira* in *Gujerat*, which in all but the names proves to be the duplicate of one formerly submitted.

Lieut. POSTANS addressed to the Society, some further extracts from the *Tohfat ul kiram* and the *Chach Nameh*, bearing on the history of *Sinde*.

[Printed in the present number.]

Physical.

The Rev. J. McQUEEN, presented on the part of Dr. DUNBAR, *Ramgurb* battalion, a second series of geological specimens collected in the *Cole* country. He begged they might with the former collection be reserved at the owner's disposal after examination.

Dr. R. HARLAN, transmitted from the Philadelphian Museum, casts made by himself of the remains of the *Basilosaurus* of *Alabama*, a fossil animal described and depicted in his "Medical and Physical Researches."

The fragments comprise the jaw, a humerus, a vertebra and some other bones.

Dr. G. G. SPILSBURY, presented a large mass of indurated clay, containing fossil shells, with a note on the various sites in which the same species have been discovered, with drawings by Lieut. P. A. REYNOLDS.

Also, a specimen of *Nerbudda* coal from Major OUSELEY.

Notice of the Academy of Natural Sciences of Philadelphia, by Dr. HARLAN—presented through E. RYAN, Esq.

Lieutenant HUTTON, forwarded specimens of the lichens of the *Himālaya*, with solutions in ammoniacal liquid for comparison with those received from the Royal Asiatic Society. The following note accompanied them.

Meerut, 23rd February, 1838.

The accompanying specimens of dyes from Hill lichens, I had lately the honor to submit for inspection to the Governor General, and I am requested by his Lordship to forward them for examination in Calcutta. In order to afford you all the information I can, regarding them, I have taken the liberty of repeating the substance of my communication to his Lordship, during his recent visit to *Meerut*.

"During my rambles in the neighbourhood of *Simla*, and especially in a hurried trip to the *Burenda Pass*, I noted an immense variety of these plants, both on rocks and trees, but not knowing at that time that information regarding them was required, I neglected to secure specimens of the greater number.

"Some few, however, which attracted notice from the beauty of their forms, I collected, and having since subjected them to the usual test of diluted liquor ammoniacæ, I find that out of eight plants, six yield coloring matter." These species might be procured in any quantities from the forests of the interior and from the rocks at the *Burenda Pass*. In collecting the plants much care and attention would be necessary, in order to "ascertain at what stage of their growth, or at what season of the year, they produce the greatest quantity of coloring matter," by which knowledge all unnecessary waste of the plants would be avoided, and also a better article furnished to commerce.

"It is probable that the higher and more arid tracts of country in *Kunawer* and *Spiti*, beyond the influence of the periodical rains, may produce some valuable lichens as, I believe it to be a fact, that the drier the climate, the more rich and valuable are the dyes."

You will find that the plants have been left in the solution; this is because of some of them I have no more left, to show the species.

The vial No. 1, contains a species which is very abundant, and appears to yield a large quantity of color. (This *orchilla* seems equal to the canary specimen.)

No. 2. Is I think the same plant in a different stage of growth. Both are abundant on trees.

No. 3. Is from the *Burenda Pass*, where it is very abundant on rocks near the snow.

No. 4. From forests of the interior; found both on rocks and trees.

No. 5. Is very abundant in the forest of *Muhassul*, one march from *Simla*.

No. 6. From *Simla* to the *Burenda Pass* on trees.

The other two plants which I submitted to the same test, did not even discolor the solution in the least.

These specimens have been very roughly tested, as I knew not what were the quantities of ammonia and water.

You will greatly oblige me by letting me know as soon as possible whether any of these are likely to be of use, as his Lordship the Governor General expressed a wish that I would inform him of the result of the examination as soon as I could.

In addition to the foregoing, I have the pleasure to send a few specimens from *Subathú* which I have not yet tested.

Nos. 7, 8 and 9, are abundant on rocks and may possibly prove to be the same species. No. 10, on rocks, not so abundant.

Of No. 1, I have put a small quantity in the box also.

The specimens will be forwarded home without delay.

Mr. C. SYMES, Branch Pilot, presented a stuffed specimen of the sword fish, on the part of Mr. J. T. TWISTEN.

Extract of a letter from Captain JENKINS, furnished the following information regarding coal and iron of *Assam*, from Captain HANNAY.

SIR,

Jeypore, the 1st February, 1838.

With reference to your letter of the 15th December last, enclosing letters regarding coal, I have the honor to state that since my arrival here I have discovered several beds of workable coal, and that I have already commenced clearing a large vein about 2 miles distant from this.

As I wish to collect the coal at as little expense as possible, I have commenced working the vein nearest to Jeypore, and before I came to this determination I employed myself on exploring the neighbourhood, and have been very successful in finding coal and iron in great plenty.

The coal is generally in veins of considerable size and is turned in all directions without reference to any particular bearings. The outcrop of the different strata or vein may, I believe, be seen in most of the small ravines or water-courses which come from these hills.

The coal which has come under my observation appears to me to be of a description between, slate coal No. 1, and canal coal. The best of the bed being as yet unseen, however I cannot speak correctly of its qualities for manufacturing purposes.

In the soil of the hills generally, large and small amorphous masses of clay iron ore are found, some of the masses of a size sufficient for two men to lift, and on one of the hills, the soil of which is highly red colored, mines or wells are still visible of a considerable depth from which the above description of one bed been extracted many years ago.

Nodules of iron ore are also abundant in the strata above the coal barring only a stratum of blue sand of 3 feet in depth separating the two.

Varieties of this ore are found in several other localities in the hills as also in the bed of the *Dehing* and on both banks, for some distance above this; some of the specimens are apparently brown and red hematite, and as an opportunity offers, I shall have much pleasure in forwarding specimens of the whole.

Petroleum is also plentiful, and it here presents itself rising from beds of coal which are visible; the description is of a thicker consistency than what I had before seen in this country; the color is also dark brown, and it does not possess so pungent an odour.

I have also to state that in one of my excursions in the neighbourhood, I walked through a tea tract of considerable extent, contiguous to what I believe had been pointed out to some of Mr. BRUCE's people.

What I have seen is entirely on hilly ground, and it seems to me to present some peculiarities which I think necessary to mention. The hill is about 80 or 100 feet high, the soil is of a deep-red color, and a portion of the tract is the locality of the iron ore, which had been dug for in former years, some of the tea trees growing out from the mines or wells.

The tea trees are tall and slender with a whitish bark, and the leaf does not appear to me to be so coarse or of so dark a color as I had before observed, and the seed is very small: the soil is no doubt congenial to the growth of the plant as seedlings are plentifully scattered about. The jangal is bambu*.

This tea tract in its general appearance comes nearer to the idea I had formed of the localities of this plant in China, than any I have hitherto seen.

I have, &c.

(Signed) S. HANNAY.

Captain LLOYD, presented 22 birds and 1 squirrel obtained on the *Sundaban* coasts.

Specimens of Caoutchouc, manufactured by Dr. Soorr, were laid on the table.

* Generally with exception of a few very large trees.



One of these in the form of a large cylindric boot was claimed by Dr. SPRY, as having been intended for transmission by him to the English manufacturers. It was explained that the cylinder or bottle form was the most convenient for the makers at home, who place the cylinder on the lathe and cut off by machinery a continual thread therefrom. This use was as yet unknown to Indian cultivators who imagined the Caoutchouc was only intended for solution.

Captain LLOYD, presented through Dr. McCLELLAND, a specimen of the mud brought up from the *Swatch*, or place of no soundings at the top of the Bay of Bengal. The following note by Dr. McCLELLAND was read.

The specimens were brought up from 200 fathoms on the north side of the *Swatch* at a short distance from shoal water by which it is said to be surrounded; but Capt. LLOYD supposes from the eddy that here appears, though slightly, to run against the tide, that the *Swatch* is open to seaward.

These are the deepest soundings that have been made, and the texture of the deposit brought up bears a singular resemblance to that of the upper beds of primitive clay-slate*, though it possesses all the characters of a deposit now forming. Compared with specimens brought up from less depth, those from the *Swatch* are more compact, and show a more luminated and finer texture.

Their color is also more uniform and unlike deposits that take place at ordinary depths; it is a greenish grey, similar to that of the peculiar slate to which it has been compared.

The *Swatch* has been supposed to be a circular basin, bottomless, though surrounded with sands and shoal waters. Capt. LLOYD however suspects that shoal water is not to be found to seaward, and he was disposed to countenance the opinion that this trough may be occasioned by the back currents caused in the Bay by the two great currents from the *Hoogly* and *Megna* between which it is situated; but the number of other outlets from the Sundarbans by which a great portion of Gangetic waters escape opposite to the *Swatch*, and the absence of any general retrocession of currents between the estuaries of the two great rivers, induced him to repose little confidence in the opinion.

It may however be remarked in favor of the above opinion, that Capt. LLOYD's observations were made during the dry season, when the peculiar influence of the rivers on the Bay may be supposed to be least. At all events we must ascribe the *Swatch* to a comparative interruption of deposits at the spot, and if the force of the two great bodies of fresh water falling into the Bay from two parallel directions be sufficient during the rains to cause an opposite current of sea water to rush back between them, a trough similar to the *Swatch* would be the natural consequence.

We might even conceive the volume of sea water which would be thus driven back by the impetuosity of the two great river currents, to be so assisted by the S. W. monsoon and the peculiar conformation of the Bay, as to overcome the comparatively weaker currents from the Sundarbans opposite to the *Swatch*, directing them on either side to the currents from the two great rivers.

The following extract of a letter from Dr. CANTOR, dated *Cape*, 17th January, 1838, was read.

Cape, 17th January, 1838.

"I have spoken to Sir J. HERSCHEL, about our museum, and I hope that your plan of exchange may by and bye be realized; it will however take some time, because the Cape museum is very poor in every branch, except in the ornithological. A single, half-cleaned skull of a rhinoceros was the only osteological preparation I observed. As for a skull of the Hippopotamus, Sir JOHN told me that he has constantly been looking out for one but without success; in the Cape district they are nearly extinct and although they swarm in the interior, the Dutch Boors cannot be prevailed upon to preserve any other part of the skull but the tushes. I am about making out a list of such duplicates which I know you are anxious to get rid of, and Sir JOHN, who embarks for England two months hence, is going to give the list to M. VALETTE the curator.

He inquired very anxiously about the fossils, which Mr. POPE (he was never able to find him out to deliver your message) discovered at the Cape (query where?) of course I could not tell more than I had heard from yourself, and the short note in your Journal. The following anecdote will I think prove of interest to you. In the interior is found a great number of isolated blocks of iron, which Sir J. by analysis found to contain nickel, and they are meteoric, of course. Some time ago Captain ALEXANDER brought samples of iron from an ore in the interior which Sir JOHN found also to contain nickel, and to be identical with meteoric iron. So add to all theories upon the formation of 'meteoric' iron. You will however in a short time see more about it from Europe.

* It struck us as resembling more in colour and texture the greenish clay ejected from the mud volcanoes of *Ramri* island, see FOLEY's Desc. J. A. S. IV., 28.—ED.

Meteorological Register, kept at the Assay Office, Calcutta, for the Month of April, 1838.

Day of the Month.	Observations at 10 A. M.								Calculated Humidity.				Observations at 4 P. M.								Calculated Humidity.				Temperature of water.		Rain.		Wind.		Weather.	
	Old Stand.	Barometer at 32°.	New Stand.	Barometer reduced.	Thermometer in air.	Depression of wet-bulb.	Do. by Læ.	Do. by Hygro.	Dew-point.	Hair Hygrometer.	Centesimal of vapour by wet-bulb.	Do. by hair Hygrom.	Ditto by dew-point.	Barometer at 32°.	New Stand.	Thermometer in air.	Depression of wet-bulb.	Do. by Læ.	Do. by Hygro.	Dew-point.	Hair Hygrometer.	Centesimal of vapour by wet-bulb.	Do. by hair Hygrom.	Ditto by dew-point.	On the ground.	At elevation 45 feet.	10 A. M.	4 P. M.	Forenoon.	Afternoon.		
1	29.800	29.828	29.828	82.4	4.4	5.0	70.4	89	68	76	68	68	29.761	29.792	88.4	10.6	9.0	68.0	76	59	52	52	78.1	1.32	S. w.	S. w.	clear, fine.	clear, fine.	10 A. M.	4 P. M.	clear, fine.	clear, fine.
2	29.833	29.859	29.859	82.9	7.0	7.4	68.7	81	63	61	63	63	29.715	29.802	93.6	17.6	17.0	55.5	58	40	29	29	81.1	1.35	S. w.	S. w.	clear, fine.	clear, fine.				
3	29.806	29.835	29.835	82.4	6.0	6.2	65.8	82	63	63	63	63	29.717	29.802	90.9	16.7	14.4	57.0	62	40	34	33	82.9		S. e.	S. e.	do very hot.	do very hot.				
4	29.835	29.865	29.865	82.9	10.4	11.9	63.6	73	63	69	48	48	29.685	29.768	94.2	15.6	15.2	59.0	66	45	38	33	82.6		S. e.	S. e.	hazy.	hazy.				
5	29.806	29.835	29.835	82.4	6.0	6.2	65.8	82	63	67	63	63	29.717	29.802	90.9	16.7	14.4	57.0	62	40	34	33	82.9		S. e.	S. e.	cloudy.	cloudy.				
6	29.835	29.865	29.865	82.9	10.4	11.9	63.6	73	63	69	48	48	29.685	29.768	94.2	15.6	15.2	59.0	66	45	38	33	82.6		S. e.	S. e.	do	do				
7	29.806	29.835	29.835	82.4	6.0	6.2	65.8	82	63	67	63	63	29.717	29.802	90.9	16.7	14.4	57.0	62	40	34	33	82.9		S. e.	S. e.	do	do				
8	29.835	29.865	29.865	82.9	10.4	11.9	63.6	73	63	69	48	48	29.685	29.768	94.2	15.6	15.2	59.0	66	45	38	33	82.6		S. e.	S. e.	do	do				
9	29.806	29.835	29.835	82.4	6.0	6.2	65.8	82	63	67	63	63	29.717	29.802	90.9	16.7	14.4	57.0	62	40	34	33	82.9		S. e.	S. e.	do	do				
10	29.835	29.865	29.865	82.9	10.4	11.9	63.6	73	63	69	48	48	29.685	29.768	94.2	15.6	15.2	59.0	66	45	38	33	82.6		S. e.	S. e.	do	do				
11	29.806	29.835	29.835	82.4	6.0	6.2	65.8	82	63	67	63	63	29.717	29.802	90.9	16.7	14.4	57.0	62	40	34	33	82.9		S. e.	S. e.	do	do				
12	29.835	29.865	29.865	82.9	10.4	11.9	63.6	73	63	69	48	48	29.685	29.768	94.2	15.6	15.2	59.0	66	45	38	33	82.6		S. e.	S. e.	do	do				
13	29.806	29.835	29.835	82.4	6.0	6.2	65.8	82	63	67	63	63	29.717	29.802	90.9	16.7	14.4	57.0	62	40	34	33	82.9		S. e.	S. e.	do	do				
14	29.835	29.865	29.865	82.9	10.4	11.9	63.6	73	63	69	48	48	29.685	29.768	94.2	15.6	15.2	59.0	66	45	38	33	82.6		S. e.	S. e.	do	do				
15	29.806	29.835	29.835	82.4	6.0	6.2	65.8	82	63	67	63	63	29.717	29.802	90.9	16.7	14.4	57.0	62	40	34	33	82.9		S. e.	S. e.	do	do				
16	29.835	29.865	29.865	82.9	10.4	11.9	63.6	73	63	69	48	48	29.685	29.768	94.2	15.6	15.2	59.0	66	45	38	33	82.6		S. e.	S. e.	do	do				
17	29.806	29.835	29.835	82.4	6.0	6.2	65.8	82	63	67	63	63	29.717	29.802	90.9	16.7	14.4	57.0	62	40	34	33	82.9		S. e.	S. e.	do	do				
18	29.835	29.865	29.865	82.9	10.4	11.9	63.6	73	63	69	48	48	29.685	29.768	94.2	15.6	15.2	59.0	66	45	38	33	82.6		S. e.	S. e.	do	do				
19	29.806	29.835	29.835	82.4	6.0	6.2	65.8	82	63	67	63	63	29.717	29.802	90.9	16.7	14.4	57.0	62	40	34	33	82.9		S. e.	S. e.	do	do				
20	29.835	29.865	29.865	82.9	10.4	11.9	63.6	73	63	69	48	48	29.685	29.768	94.2	15.6	15.2	59.0	66	45	38	33	82.6		S. e.	S. e.	do	do				
21	29.806	29.835	29.835	82.4	6.0	6.2	65.8	82	63	67	63	63	29.717	29.802	90.9	16.7	14.4	57.0	62	40	34	33	82.9		S. e.	S. e.	do	do				
22	29.835	29.865	29.865	82.9	10.4	11.9	63.6	73	63	69	48	48	29.685	29.768	94.2	15.6	15.2	59.0	66	45	38	33	82.6		S. e.	S. e.	do	do				
23	29.806	29.835	29.835	82.4	6.0	6.2	65.8	82	63	67	63	63	29.717	29.802	90.9	16.7	14.4	57.0	62	40	34	33	82.9		S. e.	S. e.	do	do				
24	29.835	29.865	29.865	82.9	10.4	11.9	63.6	73	63	69	48	48	29.685	29.768	94.2	15.6	15.2	59.0	66	45	38	33	82.6		S. e.	S. e.	do	do				
25	29.806	29.835	29.835	82.4	6.0	6.2	65.8	82	63	67	63	63	29.717	29.802	90.9	16.7	14.4	57.0	62	40	34	33	82.9		S. e.	S. e.	do	do				
26	29.835	29.865	29.865	82.9	10.4	11.9	63.6	73	63	69	48	48	29.685	29.768	94.2	15.6	15.2	59.0	66	45	38	33	82.6		S. e.	S. e.	do	do				
27	29.806	29.835	29.835	82.4	6.0	6.2	65.8	82	63	67	63	63	29.717	29.802	90.9	16.7	14.4	57.0	62	40	34	33	82.9		S. e.	S. e.	do	do				
28	29.835	29.865	29.865	82.9	10.4	11.9	63.6	73	63	69	48	48	29.685	29.768	94.2	15.6	15.2	59.0	66	45	38	33	82.6		S. e.	S. e.	do	do				
29	29.806	29.835	29.835	82.4	6.0	6.2	65.8	82	63	67	63	63	29.717	29.802	90.9	16.7	14.4	57.0	62	40	34	33	82.9		S. e.	S. e.	do	do				
30	29.835	29.865	29.865	82.9	10.4	11.9	63.6	73	63	69	48	48	29.685	29.768	94.2	15.6	15.2	59.0	66	45	38	33	82.6		S. e.	S. e.	do	do				
Mean.	29.743	29.792	29.792	87.3	5.3	5.9	72.7	86	78	70	63	63	29.631	29.772	93.0	10.7	10.0	67.4	71	61	46	46	84.7	2.72	South.	South.	Dry and hot.	Dry and hot.				

On the 8th there was a violent hail storm in Calcutta—some of the hailstones picked up at Bumdum weighed nearly a ser and measured 15 inches in circumference.—More southerly the storm took the form of a whirlwind which destroyed many villages—a particular account of its effects will be published next month.

The wet bulb depression is lower than the truth, from the linen on the bulb having been so long unchanged, and the reservoir so long uncleaned.



JOURNAL

OF

THE ASIATIC SOCIETY.

No. 77.—May, 1838.

1.—*Second Report on the Examination and Restoration of the Mackenzie Manuscripts. By the Reverend WILLIAM TAYLOR.*

A Palm-leaf MS. No. 165, Countermark 64.

A:—TAMIL.

I.—*Chola pūrva Patayam, or ancient Chóla record.*

This is a large Tamil manuscript containing 48 Palm-leaves in the introductory portion and 219 in the remainder. It is perfect as regards the numbering of the leaves, and is generally in a good state of preservation: a few of the leaves are a little damaged, but these, having been restored, the whole will last in good preservation, for several years.

Brief Abstract.

Reference to inscriptions at *Conjeveram*, and to *VIKRAMÁDITYA* the son of *GOVINDA*, slain by *SÁLIVÁHANA*. It states that *SÁLIVÁHANA* was born in the country of *Ayodhya*, in a potter's house, under the influence of *ATHI-SESHAN*. He acquired great skill and prowess; and conquering *VIKRAMÁDITYA*, subdued also the *Ayodhya** country. An era was formed termed the era of *SÁLIVÁHANA*. In his time there was great disorder, Hindu fanes, rites, and institutions, all were neglected. *SÁLIVÁHANA* was a *Samana* (or *Jaina*) a worshipper of *Sarvésvarer* of a venomous spirit, and in these he gloried. He destroyed the fanes and sacred edifices of the Hindus of five classes, without favor or distinction. He overthrew all privileges which Hindus derived from *VIKRAMÁDITYA*. He persecuted and oppressed all who would not

* Whence it appears either that the author made a mistake or else that there was a second *Ayodhya*. *VIKRAMÁDITYA* ruled over *Gujerat* and *Malwa*, and derived tribute extensively from other countries. *Ayodhya* may however, be viewed as an epithet, "exempt from war."

enter into the *Samana* religion, of which he was a devotee. If they entered the way of *Sarvésvarer*, he protected them; but punished them if they refused. Through his wickedness there was no rain, a great famine, much distress, and one house distant ten miles from any other house: the country little better than a waste benighted wilderness. The ascetics retiring to wildernesses, in secret made murmuring complaints to *SIVA*, and *VISHNU*. *SIVA* to avenge the desolation, solicited from the *Athi-Parabaram* (Supreme Being) a fire rain. *ATHI-SESHAN* beforehand apprized *SÁLIVÁHANA* of its approach in a dream. *SÁLIVÁHANA* announced to all the followers of *Sarvésvarer*, the coming fire rain, and recommended them to build stone houses, or to remain (on the day fixed) in rivers, by both of which means they would be preserved uninjured by the fire rain. They followed his advice, some quarrying stones and building houses, others watching on the banks of the largest rivers; and they were all on the alert. *SIVA* opening his frontlet eye, sent a rain of fire. *SÁLIVÁHANA*'s people took refuge in their stone houses, and he himself with his army on the banks of the *Caveri* (here used to designate a river in general), avoided it by plunging in the water. *SIVA* seeing this, by recourse had to the Supreme Being, and by meditating on the five lettered *mantra*, sent down a shower of mud. Those in stone houses were thereby blocked up and suffocated; those in rivers came out and escaped, and thus *SÁLIVÁHANA* (here also termed *BHOJA*), with his army escaped. *SIVA* now took counsel within himself. The first reflection produced *Vira Cholan*, (the thought of him was born in his mind:) the second reflection produced *Ula Cheran* of the *Láda* country, and *Nanda Gopala Yediar* (or herdsmen class or tribe): the third reflection produced *Vajranga Pandiyan* of the fisherman's class. *SIVA* then, with a regard to *VISHNU*, meditated the eight-lettered *mantra*; and through it designated these three to their respective offices, it being the special lot of the *Cholan* to kill *SÁLIVÁHANA*. The three kings came together to take counsel so that the three crowns became as one crown, and they bathed together in the river at *Tírumukudal**. After making a vow to destroy *SÁLIVÁHANA*, and taking means to assemble money and troops, they made a pilgrimage to *Kasí*. At that time *Kasí* was neglected, and it was merely a wilderness of banyan trees. They are represented as discovering an inscription deep hidden in the earth, stating this to be *Kási*, &c. (Hence it is not *Benares*, but some ficti-

* This is a place where three rivers became one, said to be not far from *Conjeveram*. Hence the name, implying, "the sacred triple union." Another such place is celebrated in a book called *Mukudal pallu* and is said to be near *Alagar kaval*, in the neighbourhood of *Madura*.

tious *Kási*, that is designated.) They subsequently came to *Canchi-nagara* (*Conjeveram*.) The same process as before is represented to have been repeated. Here also an inscription was found. (It is to be noted that the original name is *Cañhi*; *Canchi* being a modern addition.) They were referred for further information to CACHI VIRÁ CÁMÁCHI RAYEN, of the weaver tribe. They cleared the forest; but were opposed by a local DURGA who threatened to sacrifice them for trespassing on her domains. There follow various details needless to state minutely. SÁLIYÁHANA is again designated simply by the name BHOJA. The aforesaid CACHI VIRÁ CÁMÁCHI appears as a negociator with the local DURGA, and promises her one thousand and eight human sacrifices, from among the people of his tribe, and the title of "War goddess;" so that when the tribe should rule, and fight with other kings, her appetite for human blood should be abundantly satiated: with these terms the DURGA was satisfied and gave consent to the building of a town, and establishing a monarchy. (If this be ornament it is still startling in its indications as to by-gone days.) She then took him to the tank of her local residence, and explained to him that after VIKRAMÁDITYA's defeat by SÁLIVÁHANA, all the former inhabitants of the place had collected their jewels and other valuables, which were put into a copper chest, and that this chest was buried, deep under the bed of a tank (reservoir), in a cave closed by a door, which was locked, and over it the stone bed of the tank was relaid. She pointed out to him the spot, and put him in possession of the chest. She also directed him to another spot where ancient records of the place, when the country was ruled by DEVENDRA were deposited, and shewing him where it was she disappeared. CACHI VIRAN returned to a locality where the three kings were waiting for him. There follows some more fable, and then an order from SIVA in the form of a *guru*, to open the chest. A detail of its contents—a smaller chest, a weapon, a sacred utensil or weapon, another weapon, a brass vessel, a key of the inferior regions, five other keys, an iron crow-bar, a hammer, ten thousand pieces of gold coined in the age of the great king SANTANU. The smaller chest being opened contained images of *Ganesa*, *Kártikeya*, *Valliyamma*, (the female image at *Chillambam*), a *trinetra* fruit (the sacred ashes of the *Saivas*), a sacred bead containing the image of one god (usually it is held to contain three, four, or five; the kind mentioned is very rare). A chank with its windings to the right (extremely rare and precious), a cane without joints or knots, a row of beads for prayer, a seal ring of six classes of Hindus—these and the like were in the inner box. These were given to the *Saiva guru* to be purified, and then

were committed to the care of VIRA CÁMÁCHI for the purposes of worship. He fetched a pot of water from the *Cambha* river, and putting it before the chest, placed one of the weapons upright in the ground, and paying homage transferred the divinity resident within the chest, into the pot of water, which was daily worshipped by himself and his wife. This was all done by instructions from the god in the shape of a *Saiva guru*. He delivered the same over to his son to be so handed down from generation to generation. The said *guru* further told them to make use of the key of the inferior regions in the place before indicated by the local DURGA, where a copperplate inscription would be found. The *Saiva guru* then disappeared resuming his divine form of *Yegambarésvarer*. The three kings were again resorted to, when the original inscription first mentioned was once more read by them all, and again hidden. After some other matters the opening of the other cave is mentioned to which the instruments before found in the first box were necessary. This was a cave which was entered by the light of large torches, and thence another box was taken. The inscription on copper-plates and its contents are stated to have referred to the four ages, with the record of some leading names, and coming down to the mention of VIKRAMÁDITYA'S defeat by SÁLIVÁHANA; at which era it would appear to have been engraved; and its contents are said to have contained extensive details, (certainly ill suiting a copper-plate record, but there is much of exaggeration apparent :) the simple object of the inscription would seem to have been to commemorate the previous prevalence of the Hindu faith, that the memory might not be lost, during the greatly altered state of things under SÁLIVÁHANA. The three kings rendered great honor to VIRA CÁMÁCHI and to his son. There is a brief repetition of matters connected with the four ages; for the purpose of shewing apparently, that all the great events recorded were preceded by the exhibition of human sacrifices; and it was again agreed upon by the three kings that before setting out to conquer SÁLIVÁHANA a similar sacrifice must be offered at a place termed *Cúdutturi*. The contents of the inscription, as regards the list of kings in foregoing ages was copied out on palm-leaves, and then the copper-plates were returned to the place whence they had been taken. The three kings again went to *Kási*. Thence they derived three crores of money, said to be dug up from beneath the shrine of a goddess; a variety of fabulous accompaniments. Nine persons in all are represented as having visited *Kási*, and as subsequently returning to *Conjeveram*. The affair of destroying SÁLIVÁHANA was now entered on, and the three kings leaving *Conjeveram* proceeded to *Cudatturiyur*. Being there VIRA CHOLAN wrote

letters missive addressed to the votaries of SIVA and VISHNU, whether in cultivated lands or wastes; always excepting the *Samana* followers of SARVESVARER, the purport being a call to assemble at *Cudatturiyur*, in order to proceed against SÁLIVÁHANA. A great concourse assembled. SÁLIVÁHANA heard of these preparations. (Here the manuscript takes a retrospect in a few lines, and the passage is important.) In former days VICKAMÁDITYA ruled in the country of *Ayodhya*, and built a large town with battlements and other fortifications. When SÁLIVÁHANA BHOJA, conquered VIKRAMÁDITYA, as he was not fit to rule in that town, he constructed another town in the same country, called *Bhoja raya puram* where the descendants of this SÁLIVÁHANA BHOJA ruled during 1442 years*. In their time the three kings aforementioned made their preparations which (the descendant of) SÁLIVÁHANA learning, consulted about some place of refuge and hearing of *Trichinopoly*, inquired concerning its origin and antiquity. This statement introduces the ordinary legend about that place founded on circumstances connected with the poem of the *Rámáyana*. Assembling all his forces SÁLIVÁHANA set out with them from *Bhoja rayapur*, and overran the whole of the Peninsula, until he came to *Trichinopoly*, of which he took possession. Ascending the rock, and perceiving the strength of the place, he considered that no one could dispossess him of it, if he made it his citadel, which greatly added to his confidence. Residing in a palace at the foot, he thence administered the affairs of the kingdom. Meantime the three kings continued their preparations at *Cudatturiyur*. CACHI VIRAN advised to send an envoy to hear what SÁLIVÁHANA would say, and then to levy war against him. The CHOLAN accordingly sent CACHI VIRAN himself, accompanied by some troops: at an interview with

* Thus in the sense of this author, SA'LIVA'HANA stands both for an individual and for a dynasty, of which he was the head; according to a custom of their oriental, and even scriptural, writers, as has been fully shewn by Bishop NEWTON in his *Dissertations on the Prophecies*. The tales about VIKRAMÁDITYA make BHOJA rāja his successor after some interval, in a different town, and on another throne. If the *Carnataka rajakal*, can be safely followed the town and fortress of SA'LIVA'HANA was at the modern *Dowlutabad*, a truly singular place, according to the description given of it by Captain SEELY, while the neighbouring sculptures at *Ellore* (prevailingy Jaina in fashion) sanction the idea of a great power in the neighbourhood. At that place *Deva giri* (or *Dowlutabad*) a long list of kings did reign down to *Rama deva* (or *Ram deo*), conquered by the Muhammadans, when the place was plundered, and the kingdom subjugated. Hence I think we have some important indications to be followed out in fuller conclusion.

[The quasi interregnum of 1442 years is evidently introduced to reconcile the modern with the ancient epoch of the *Kali yuga*. See next page.—ED.]

SÁLIVÁHANA, in *Trichinopoly*, he recited the preparations made with the express intention of destroying the power of that ruler, demanding in consequence that he should give up *Trichinopoly*, renounce the *Samana* way, bathe his head in the *Caveri* (become a Hindu), retire to his own proper town of *Bhoja rayapur*, and there maintain only half his present army. SÁLIVÁHANA, much incensed, with abusive epithets, rejected the demand; but added a challenge if they thought themselves strong. CACHI VIRAN returned to *Cudatturiyur*, and his opinion being asked he advised a second embassy before making war; CACHI VIRAN was again sent. An appointed time and place of combat were now fixed, SÁLIVÁHANA engaging to come with his force to the place. This place was *Tiruvani kaval*, whither the three kings, CACHI VIRAN, his son, and an army repaired as appointed. There VIRA CHOLAN was crowned and invested with royal insignia by CACHI VIRAN; thence they proceeded to besiege *Trichinopoly*. CACHI VIRAN, by means of the copper inscription at *Conjeveram* before mentioned knew that by the craft of VISBUSHANA (younger brother of RÁVANA) there was a subterraneous entry into the fort of *Trichinopoly*. This was passed by a few people with torches, who thence proceeded to open the *Chintamani* gate, by which the troops entered in multitudes and destroyed SÁLIVÁHANA together with his *Samana* troops, with great effusion of blood. A pariar named VELLÁN escaped on SÁLIVÁHANA's horse, and with him a hundred others with their families, escaped, and went to the sea shore, whence he proceeded to some island, so as to leave behind the proverbial saying "VALLÁN went to the river:" the destruction of SÁLIVÁHANA is dated in C. Y. 1443 (in writing at full)*. The three kings celebrated their conquest. VIRA CHOLAN had to get rid of the crime of killing SÁLIVÁHANA styled *Sarpa-dósha-Brahm-hatti* (that is, a degree of sacredness adhering to SÁLIVÁHANA as born under the influence of *Athi-seshan*, assimilating the crime to the evil of *bráhma*-slaughter, though not the same). In consequence of this crime he became infatuated, and fell sword in hand on his own troops, who on all

* The authority for this date deserves examination, as if well founded it reconciles all the difficulties of the *Kali yuga* epoch, which it places in 1443-78=1365 before Christ. Now by calculation of the place of the equinoctial colures, DAVIS fixes PARA'SARA the contemporary of YUDHISTHIRA at the commencement of the *Kali yuga*, in 1391 B. C. And calculating backwards the Pauranic reigns from CHANDRAGUPTA to YUDHISTHIRA, WILFORD places the latter in 1360,—WILSON in 1430 B. C. The confirmation of SA'LIVA'HANA's being a *sramana* or buddhist is important: his name seems derived from some allusion to the sacred *sál* trees under which SA'KYA died:—is it possible that the surname of *Bhoja* wrongfully applied to him, may be a corruption of *Bauddha*, the buddhist?—ED.

sides ran away to avoid him, besides which he sloughed his skin, in the same way as a serpent changes his skin annually. His companions seeing these things consulted together, and in consequence CACHI VIRAN gave instructions to his wife CÂMÁCHI to assume the guise and appearance of a *Curava* woman, of the description practising palmistry. She accordingly came into the town in that guise, when the three confederates had her called, and first submitting their own palms, brought VIRA CHOLAN to submit to the like process. The fortune-teller said that he had killed SÁLIVÁMANA, of such and such a race, and must expiate the crime by building a great number of fanes to SIVA, to VISHNU to SUBRAHMANYA, dwellings for ascetics, and dwellings for Brahmans; and to enforce the duty a long narration is given of distinguished personages in former ages, who had expiated like crimes, by building an immense number of such structures. At the mere hearing of the duty, VIRA CHOLAN found his malady alleviated, and the doing accordingly was determined upon. The *Curatti* (or fortune-teller) went away and resumed his proper form as CÂMÁCHI. The kings inspected the fortification of *Trichinopoly* which they found only fit for a *rakshasa*; but extended it so as to be fit for a regular Hindu sovereign. They then returned to *Conjeveram* where by their desire CACHI VIRAN, read to them the writings on palm-leaves, his copy of the before mentioned copper-plate inscriptions; and, according to the appointment therein stated by RAMA, the division of castes and tribes was restored. A great number of sacred edifices of the five kinds were built. The three kings then separated to their respective dominions. From *Ularacheran* there were 26 kings down to *Chengara natha cheran*. From *Vajranga* there were 26 *Pandiyans* down to *Choka natha*. From *Vira Cholan* down to *Uttama Cholan* there were 25 *Cholans*. The son of UTTAMA CHOLAN was URIYUR CHOLAN, with the account of whom a new section is made to begin.

The ancient record of the time of CARI CALA CHOLAN.

After the death of UTTAMA CHOLAN the crown devolved on URIYUR CHOLAN in the year of the *Cali Yuga* 3535*. This was corresponding with the death of CHOKA NATHE *Pandiyán* of the southern *Madura*. The son of this last, MINATCHI SAVUNTIRA *Pandiyán*, was crowned C. Y. 3537. In the *Congu Dharapuram* the death of CHANKARA NATHA CHERAN was contemporaneous. His son named CHERUMAL PERUMAL was crowned C. Y. 3538. In the town of *Canchi* (*Conjeveram*) SAC-

* This date is irreconcilable with the epoch above assumed—the innovation—viz., the astronomical fixation of the *Kali yuga*, as the zero of the planetary revolutions, must therefore have taken place before it was written.—ED.

SHAMAIYA MUTHALIAR of the race of CACHI MUTTHU VIRA CÁMÁCHI RAYER being dead, his son named CACHI VIRA VENCATA CHELLA MUTHALI was crowned in C. Y. 3539. Some details follow connected with the right hand class of people, to which VENCATA CHELLA belonged. Reverting to URIYUR CHOLAN, he is stated to have been as bad as SÁLIVÁHANA, which conduct so displeased ŚATA SIVA, that he gave permission to CARI MARI (the DURGA) at *Conjeveram* to send a shower of mud against URIYUR. But SEVENDHI-ISVARER admonishing URIYUR CHOLAN in a dream, the latter fearing for his life prepared to take refuge in the *Conga nad*, and there to keep himself concealed. His wife SINGHAMMÁL was in a state of three months' pregnancy. The aforesaid CARI MARI opening the eye on her forehead, sent down a shower of mud. It arrested URIYUR CHOLAN, halfway in his flight, and killed him. From the circumstance of CARI MARI opening her frontlet eye she was called CUNNANUR MARI. SINGHAMMÁL with a single attendant arrived in the *Conga* country, and both performed manual labor in a Bráhmaṇ's house. A son was born to her, he was well instructed and at 16 years of age an assembly of people occurred at *Tiruvatur* to consider the best means of remedying the evils which had arisen from the want of a king. The principal men from *Conjeveram* including the before mentioned VENCATA CHELLA were present, and a white elephant was brought from *Kási*. The usual arrangements being made the elephant was let loose; and proceeded of its own accord to the *Conga* country, where it selected the above youth who was playing along with several Bráhmaṇ boys. He was crowned and received the name of CARI CALA CHOLAN. The *Pandiyan* and *Cheran* are represented as summoned to be present. The date was C. Y. 3567, (A. D. 465.) After all things had reverted to their course, the tale is introduced of the son of CARI CALA CHOLAN running over a calf in the streets *Tiruvárur*. CARI CALA CHOLAN became troubled with the *Brahmahatti*, and to remove it, the same device as before was resorted to. *Yegambara isvarer* of *Conjeveram* temple instructed his wife CÁMÁCHI to assume the guise of a fortune-teller. The remedy was to build 360 *Saiva* fanes, and 32 water aqueducts for irrigation. Details at great length then follow of the founding and endowment of various *Saiva* fanes; too minute for being abstracted. Such details may have their use. (Here the manuscript being very much injured in different places, so much as needful was restored, on other palm-leaves.) The great prevalence of the worship of DURGA throughout the *Chola* country is indicated. Most of the village fanes are erected to some name or form of DURGA. Besides the intimation given in the early part of the work of human sacrifices hav-

ing been offered, on a grand scale, it further appears that SAMAYA MUTHALI a manager or agent for CARI CALA CHOLA offered one of his sons in sacrifice at *Trinomali*, and at the demand of the DURGA at *Mathurai (Madura)* he offered another son as a sacrifice. He then insisted that for future years human sacrifices should not be offered; but that the goddess must be contented with other offerings, a multitude of goats being included. It is stated that 27 generations, and 36 reigns occupied 2460 years. (In this statement and in the following ones there is a recurrence of artificial structure.) The number of fanes constructed by the three kings, *Chola*, *Pandiya* and *Conga*, is greatly exaggerated. Among other things it is stated that beneath the shrine of *Minacshi* at *Madura*, there is a subterraneous way to the *Vaigai* river. A great many things are mentioned apparently with the object of magnifying the importance of SAMAIYA MUTHALIAR, and the weaver caste at *Conjeveram*. After which CHERUMAN PERUMAL being at *Conjeveram* with his colleagues, the two other kings, he is brought forward as looking into futurity, and declaring matters in the form of a prophecy. To wit, the whole country will become Muhammadan, the gods of the chief places will retire into concealment. The Muhammadans will exercise great severities. The *Samana* religion will increase, low tribes will prevail throughout the country. There will be want of rain; famine, deaths of people in consequence. Every thing will be as in the days of *SÁLIVÁHANA*. The Muhammadans will rule during 360 years. They are termed *rákshasas* concerning whom the sacred ascetics will complain to SIVA. SIVA in consultation with VISHNU, will resuscitate VIKRAMÁDITYA with his minister BATTI*, and destroy by him, the Muhammadans. SIVA will order VIKRAMÁDITYA, born as VIRA VASANTA RAYER, to reign with his posterity, during a period of seven generations and 540 years. After that, while performing worship with eyes closed, the Mogul Padshah will come and destroy him. The *Rasgiri* Mogul and his posterity will reign 5 generations or 360 years. VIKRAMÁDITYA, will again be born as RANA KANDI VIRA VASANTA RAYER and rule with his posterity 7 generations and 540 years. Another Padshah termed COLA CALA will then come and destroy him, and rule for 5 generations, and 360 years. VIKRAMÁDITYA will then again be born at *Raya Vilur*, and destroy the COLA CALA Padshah, and rule with his posterity 27 generations and 2160 years. After that he will be taken up alive to

* The common name of the minister on the grants and pillars of the Suráshtra and Oujein princes is *Bhatti*, and *Vikramáditya* is a title on many of their coins. We may therefore soon hope to find who this bráhman prince overthrown by a Buddhist rival really was. —ED.

Kailāsa. Some other similar matters being stated it is added that the *Chola* and the *Pandiyā* dynasties will become extinct, and CHERUMAN PERUMAL'S race alone remain, ruling in the *Cōnga* country, SUNTARER MURTI carries CHERUMAN PERUMAL into the presence of SADASIIVA, and there he remains in a state of beatification.

There are a few more palm leaves containing poetical stanzas on the boundaries of the six Tamil countries of no consequence, similar ones having been translated and printed. They are allowed to remain attached to the book.

Remarks. It appears to me that this rather extensive piece of composition is, in its introductory portion a species of historical romance, but, like many other such romances, containing some fragments of real history. The first date that is met with, fixing the destruction of SĀLIVĀHANA at Cal. Y. 1443, (or B. C. 1659,) is calculated to reflect disgrace and discredit not only on the chronology, but also on the entire composition*. There seems however to be something more credible when the installation of CALI CARA CHOLAN is dated C. Y. 3567, (A. D. 465.) Just before there is an artificial structure visible in the 26 *Cherans* and 26 *Pandiyans* and 25 *Cholans*; and ascending upwards with these 25 generations from, say about C. Y. 3550 to C. Y. 1443, the result would be 80 years to a generation, far beyond probability; and yet apparently to make room for so many generations the author threw the earlier date so far back; forgetting that the era of SĀLIVĀHANA by common consent, did not commence until about 77 A. D. Besides in the artificial, and untrue, representation of the three kings being so much and so long together, and uniformly of the same mind, there is a violation of what we know to be history, so far as they are concerned. The utmost that can be admitted is, that the author put together, in the best manner he could, the disjointed fragments of traditions which he had heard; many of which may have been true, though not true as he has collocated them, hence to judge of the value of any such traditions it seems expedient to discover at what time the author wrote. There is no trace as far as I can perceive, of his name, but he has given an indication as to time. The book made use of, it may be observed in passing, is from internal evidence, a copy from some other one. It is not easy to judge of the antiquity of palm-leaf copies of works, so much depending on the care employed in the preservation. This particular copy may be 50 or possibly 100 years old. But however that may be the date of the original cannot I think be much less than 300 years since. I derive the inference from the latter part, wherein VIRA

* See the preceding notes.—ED.



VASANTA RAYER is mentioned as a new incarnation of VIKRAMÁDITYA. Up to that period the alleged prophecy is history, in the main feature of Muhammadan rule and violence. And to the best of my judgment, arising from the study of similar documents, I conceive the author to have lived and written sometime in the 15th century, probably towards its close. Thenceforward he manifests ignorance: availing himself of some Pauranic annunciations as to the three VIKRAMAS; but yielding nothing like matters of fact. I am of opinion, by consequence, that the author was patronised by VIRA VASANTA RAYER and wrote under his auspices. Of this VIRA VASANTA RAYER we find traces in the mention made of him in the smaller local papers of this collection, as may have been observed in those already abstracted; but from the *Carnata rajakal* we learn more distinctly that he was a viceroy of NARSINGA RAYER father of KRISHNA RAYER. The former who subverted the more ancient *Vijayanagara* dynasty, made a successful inroad into the *Conjeveram* and *Ginjee* country, I believe before his conquest of *Vijayanagaram*, but whether before or after he placed VIRA VASANTA RAYER as his viceroy over the country that had become subject to the kings of *Ginjee*. The era of NARSINGA RAYER is within the 15th century. Now if we consider the author to have written in that century, it will be apparent that he might have some advantage over later writers in the matter of early tradition, and there may consequently be some circumstances in his account worthy of attention.

The writer's chief object seems to have been to frame an account of the foundation of the various shrines scattered over the extent of the Carnatic proper. The statements given concerning them form the larger portion of the manuscript; but these of course I have passed by, as they could only be developed by translation. In the event of any cause occurring to require an exact account of different shrines or fanes I presume this manuscript might acquire a measure of consequence, not now belonging to it. As it is, there are a few historical indications, that ought not to be despised, because the whole will not bear the severer tests of western historical writing. These indications are: that SÁLIVÁHANA was a *Samuna* or *Savana** (for the writer or his copyist writes the word in both methods) that he persecuted the *Bráhmanical* religion, and patronised another which for the present I suppose to be the *Jaina* system; that an insurrection took place leading to the destruc-

* These two words are apparently the *Páli* or *Prákrit* forms of the common Sanskrit terms for the followers of Buddha; viz. *Sramana*, a devotee, austere ascetic, used by themselves; and *Sravana*, a heretic, used by their opponents the bráhmans.—ED.

tion of many of his people, but that he himself and his army escaped; that he over-ran the country to the south, as far as *Trichinopoly*, which he probably first fortified; that he had a line of princes of his own posterity succeeding him; that he ruled in a town and fortress of his own construction, not being the capital where *VIKRAMÁDITYA* ruled before him; that *BHOJA rāja* was perhaps another name by which he was known, or was the name of one of his successors; that as *SÁLIVÁHANA* stands for the name of a dynasty, (like *Cæsar*, *Plantagenet* or *Bourbon*,) so perhaps *VIKRAMÁDITYA* may in other books stand for a dynasty, and so help us through the fable of his asserted long reign. These seem to me to be fair inferences for fuller consideration hereafter. I will add as mere conjecture that *Samana* or *Savana* as it is often spelt, may possibly be none other than the change of *y* into *j* or *s*, which is a very usual one thus giving us *Yavana*, and if so then there is a concurrence with a multitude of other indications as to the interference of the *Yavanas* with the greater portion of India, inclusive of the peninsula. For the original of the *Yavanas* we must look most probably to the *Bactrians*. Besides in the *Banta curzis* (for which see a following page MS. Books, No. 14, Section I.) we have the remnants of ancient sepultures of which the people of the present day know nothing beyond conjecture. They accord with Dr. MALCOLMSON'S account of similar ones at *Hydrabad*, (*Bengal Asiatic Journal*, vol. IV. p. 180,) and with the contents of the wounds in the *Panjab*, opened by *HONIGBERGER* and others. In the Carnatic they were found in localities that would rather indicate camps (*Castella*) than towns. At all events such vestiges are foreign. All Hindu records afford traces of foreign interference which they usually mystify. The dark and mystified period succeeds the term allotted to *VIKRAMÁDITYA*; and the manner in which *SÁLIVÁHANA* is spoken of sufficiently indicates sectarian hatred, and resolution to conceal the truth.

The alleged flight by sea of a portion of the garrison at *Trinchinopoly*, I have not before noticed. It is not however to be entirely disregarded. The peopling of *Java* with a race evidently from India, has to be accounted for, and the many concurring Hindu traditions and records that people were driven from India by wars or persecutions, proceeding thence by sea, all require to be noticed as they occur; seeing that in the end they will point to some general conclusion.

The symbolical language of the *Chóla purva Patayam*, (the document under consideration,) may be adverted to in passing. It is a regular specimen of Hindu writing; and that, even in plain prose, involves bolder metaphors than would enter the minds of European

writers, and more than metaphors, that is symbols bordering on hieroglyphics probably suggested by the use of hieroglyphical writing. The Mackenzie MSS. have in some degree educated me to a small degree of acquaintance with this language ; though, on discovery of this style of writing, a previous acquaintance with the symbolic language of the Christian Scriptures assisted me much. Generically both are the same ; specifically they vary. Until this symbolic kind of writing is more fully understood, we cannot come to the real meaning and contents of a multitude of early Hindu writings.

One instance may be given in the fire-rain of which mention occurs at the commencement of the manuscript. The *Jainas* have a doctrine that a rain of fire always goes before the periodically recurring universal deluge, and this is only a slight alteration of the orthodox Hindu statements, that before the *Manupralaya*, or periodical deluge, the sun acquires so much increased power, that all things are scorched up and destroyed ; after which copious showers, in which water descends in streams like the trunks of elephants, involve the cinerated surface of the earth, deep within a folding of mighty waters ; during which time is the night of BRAHMA, or quiescence of the creative energy, and during which time NARVAYANA, or the conservative energy, quietly floats on the surface of the abyss. But though the aforesaid notion of the *Jainas* may have suggested the idea of fire-rain, yet it seems in the document under notice to be a symbol made use of to denote divine judgments : whether the idea in this sense may be borrowed from a well-known historical fact or otherwise let others determine. Hindu writers reckon seven kinds of clouds which respectively shower down gems, water, gold, flowers, earth, stones, fire, in which enumeration, part at least must be metaphorical. In strong poetical hyperbole a lightning-cloud might be said to rain fire. But the lightning and thunderbolt form INDRA'S weapon. The fire-rain rather seems to be a symbol of the anger of SIVA, in plainer terms, an insurrection against SÁLIVÁHANA ; and, if so, the shower of mud, may have a symbolical meaning also ; and may help to the meaning of a tradition which states that *Uriyur* the capital of the *Chola* kingdom was destroyed by a shower of sand or mud. This last event however, the manuscript in question, aided by some others in the collection, has enabled me to perceive is to be understood of a popular movement, beginning at *Conjeveram* against a violent *Chola* prince, directed with effect by a hostile *Pandiya* rája : so that *Uriyur* was taken by force, and the king compelled to flee, being arrested and killed by the mud shower ; that is, being overtaken and slain by pursuers from the hostile army. It may

suffice for the present to point, in general terms, at such clues to the meaning of symbolical writing, but to make full use of the whole can only result from digesting and comparing all such indications together, which, for the present at least is not my task.

It may not be amiss to show in passing, that the emblem or symbol of a fire-shower is not entirely strange to poets of the west. Thus MILTON, in his absurd pauranical description of war in heaven, puts into the mouth of one of his heralds-angelic, this expression :—

“ No drizzling shower

But rattling storm of arrows barb'd with fire.”

And CAMPBELL, a poet of our own age in his LOCHIEL's warning, and in a passage, Hindu-like, poetically predictive of a past event, that is to say, the battle of *Culloden*, puts this expression into the midst of an expostulation from a local seer of the land ; addressed to LOCHIEL.

“ Why flames the far summit ? why shoots to the blast,

These embers like stars from the firmament cast ?

'Tis the fire-shower of rain, all dreadfully driven

From his eyrie that beacons the darkness of heaven,

* * * * *

Heaven's fire is around thee, &c.”

Here the symbol is precisely the same in kind, as that which I suppose to designate some battle against SÁLIVÁHANA in which he was worsted, and saved himself with the remnants of his army, by retreating across a river. While his country being left open, those of his race who had taken refuge in stone-houses (or forts), were besieged and taken, possibly by starvation, emblemized by the mud shower ; even as the capture of *Uriyur* is handed down in popular tradition under the veil of that capital having been destroyed by a shower of mud. That I formerly* took a more easy and credulous view of this latter circumstance will be no effective argument against a more mature, and as I think a better conclusion.

Professor WILSON's notice of this manuscript may be seen Des. Catal., Vol. I. pp. 184-5.

2.—*Tiruviliyadal Purána. No. 34, Countermark 84.*

This is a copy of the *Madura Auhalla Purána* in Tamil verse, complete, and in very good order. As noted in the next article, it wants some of the marks usually borne by MSS. of this collection.

3.—*Tiruviliyadal Purána. No. 35, Countermark 24.*

This is a copy of the same work in prose, and on examination was found to be incomplete ; though otherwise in good order. It wants

* Or. Hist. MSS. Vol. II. p. 91.



part of the 30th section, and the whole of the three following sections. This last manuscript retains the usual marks of having passed through Professor WILSON's hands, and is briefly catalogued vol. 1, p. 173. No. xxvii. under the title of *Perawoliyyr Purána*. The preceding copy wants that attestation, and is not mentioned in the catalogue, giving occasion to some doubt whether it may not subsequently have been substituted in the collection for some other work.

Observation.

Since the *Madura Sthalla Purána* (from a copy of my own obtained direct from *Madura* several years ago), was abstracted by me, and the abstract published in the 1st volume of *Oriental Historical MSS.* it has not appeared to me needful to abstract the same work anew in this place. In order however to make the last copy complete the deficient portions have been restored on palm-leaves, and incorporated with the work in the proper place.

4.—*Srirangha Mahalmyam, or legend of Seringham, near Trichinopoly.*

This is a palm-leaf MS. of 70 leaves in good preservation and in very legible writing. It is found in the collection without mark or number; but is noted in the descriptive catalogue vol. 1, p. 174.

There is no need of doing any thing with it, as regards restoration. The following is an

Abstract of the legendary contents.

1. NÁREDA addresses ISVARER, and stating that the latter has told him all the wonders of the three worlds (upper, middle, and lower) desires to know the renown of the *Cávéri* river, and how *Sri rangha* became a *Vaishnava* fane. Extravagant praise as to the omnipotent virtues of doing any act of homage at *Sri rangham*, is stated in reply, by ISVARER, forming the first *adhyáya*, or division of the work.

2. NÁREDA expressing his satisfaction at what he had heard, inquires as to the placing there of the *Vimána* (or shrine) to which SIVA replies forming the second *adhyáya*. In the time of the deluge NÁRRAYEN was sleeping a long time on the serpent *Athi-seshan* (singularly enough, from a later fable, said to be at the same time in the bowels of *Agastyar*); BRAHMA was born; the *Pranava* formed (or mystic *O'm*). Origin of the *Rig veda* the *Sóma yagam* and the 18 *Puránas*: other similar matters of a mythological description, relating to times immediately succeeding the deluge.

3. BRAHMA begun the work of creating anew; BRAHMA studied astrology to acquire foreknowledge. He also performed penance. The

Cūrma-avatāra of VISHNU, BRAHMA said that VISHNU had assumed many deceptive forms, but he wished to see him (VISHNU) in his own form. In consequence a *Vimāna* or shrine, was produced described in highly hyperbolical language; BRAHMA worshipped the image therein of VISHNU in a reclining posture, extravagantly described, forming the third *adhyāya*.

4. BRAHMA made one hundred thousand prostrations to VISHNU, and declared that he ought to be so honoured for crores of years, without end; BRAHMA terms him JAGANNĀTHA (lord of the universe) and, "father." A long string of similar praise, indicating this image of VISHNU to be all things, and things in it; VISHNU declared his satisfaction with the eulogium pronounced by BRAHMA, and inquires what gift he requires.

5. BRAHMA requests that VISHNU under that form will always be in that image, and that he (BRAHMA) may always have the privilege of worshipping it. VISHNU tells BRAHMA that if he so worship him during one hundred years he will attain beatitude, and if others so worship they will attain beatitude. Some little explanation is given of what is meant by beatitude.

6. BRAHMA desires to be informed as to the proper manner of performing homage and service to VISHNU's image. This is stated and it is added that he is a *Chandāla* who does not worship VISHNU, being a quotation of stanza by PILLAI PERUMAL AYENGAR; whosoever speaks against the *Sri rangha* image is a *Chandāla*. If there be an ignorant person that knows nothing of *Sri rangha perumal*, the food he eats is the same as that given to a dog. BRAHMA took the shrine to *Swergaloka* (INDRA's paradise); the precise day of which event is stated, with astronomical accompaniments, but in what year is not mentioned. The sun was summoned, was taught a *mantra*, and directed to worship the image; which SURYA accordingly did. SURYA's son did the same; and IKSHVĀKU, the son of the latter also paid homage. The latter brought the image back to earth again. Many kings of the solar race worshipped it in subsequent ages: all who did so (ISVARER informs NĀREDA) were prosperous.

7. NĀREDA inquires the cause why the *Vimāna*, or shrine, came down from heaven to earth? Why did BRAHMA give it to IKSHVĀKU, and for what reason was it brought, and placed in the midst of the river *Caveri*? IKSHVĀKU was a king of *Ayodhya*, he was taught by VASISHTA. He killed all the evil *rākshasas* and while reigning equitably, he one day thought on his father VAIVASVATA, and others having gone to the other world, and thereby worshipping this image obtaining beatification,

but that since he himself and his children could not go thither to worship, it would be expedient by penance to bring SRI RANGHA down to earth, which thought he unfolded to VASISHTA. The latter was rejoiced and taught him the eight-lettered *charin*. The gods sent MANMATHA to destroy the penance of IKSHVÁKU, who wounded the latter with one of his arrows, but IKSHVÁKU was firm, and prevailed. INDRA came down to disturb his penance ; but IKSHVÁKU by meditating on SRI RANGHA brought down the flaming *Chakra* of VISHNU, at the sight of which INDRA fled ; and IKSHVÁKU ascribing the praise to SRI RANGHA continued his penance. SRI RANGHA now tells BRAHMA, that he will go down to *Ayodhya*, and stay there during four *yugas*, and afterwards remain between both banks of the *Cáveri* during seven *Manwanteras*, and again return to be in time for BRAHMA's midday worship : and subsequently go to earth and return again perpetually ; but that while absent no evil shall happen to BRAHMA. In consequence BRAHMA put the *Vimána* on *Garuda*, and brought it down to earth, where he taught IKSHVÁKU all the needful ceremonies to be observed in its worship.

8. The *Vimána* was placed in the centre of a river at *Ayodhya*, where a temple was built for it, and all accompaniments provided. The race of IKSHVÁKU worshipped during a *mahá yuga*, or great age. At that time a *Chola rája* named D'HERMA BRAHMA, went thither to a sacrifice, and inquired of the *rishis* the circumstances attending the transit of the *Vimána* from heaven to earth. He professed a desire to do penance in order to obtain the image ; but the *rishis* told him it would be useless ; explaining to him, that they knew the town of his ancestors, to which SRI RANGHA was due west only a mile or two, had been destroyed by SIVA, because one of his progenitors had trampled on the flower-garden of a *muni* there ; that VISHNU would soon be incarnate as RÁMA, who would give the *Vimána*, or shrine, into the hands of VIBHUSHANA (younger brother of RÁVANA), who would place it at SRI RANGHA. A defiance of chronology is here involved in making the destruction of *Uriyúr* anterior to the expedition of RÁMA. RÁMA being come made an *Asvamedha yágam* (horse sacrifice) to which D'HERMA BRAHMA went, and before the other assembled kings were dismissed he asked leave to return home ; VIBHUSHANA followed, bringing the shrine by permission of RÁMA, which he placed between both banks of the *Cáveri* with the mention of which the 8th *Adhyáya* concludes.

9. D'HERMA BRAHMA detained VIBHUSHANA from going to *Lanka* for the space of 15 days ; during which time a festival of 10 days was celebrated in honour of the image. At the end of the 15 days VIBHU-

SHANA purposed to take up the image again on his head, and carry it to *Lanka* but found it to be so heavy, that he could not move it ; on which being greatly grieved, and prostrating himself before the image, PERUMAL told him not to grieve, for that it was previously appointed that the shrine should remain here, in the good land of the excellent *Chola* kings ; and to account for it narrated a fable of a dispute between the Ganges and the *Caveri* as to which of the two was the greatest, which being decided in favor of *Gangá*, the *Caveri* (personified as a female) dissatisfied went to the north side of the *Himálaya*, and there began a severe penance. BRAHMA demanded what gift she wanted. The reply was to be greater than *Gangá*. The answer of BRAHMA was, that this could not be ; but he bestowed on her the gift of being "equal to *Gangá*." *Caveri* dissatisfied came to a place near this, added PERUMAL, and there worshipped me, demanding to be greater than *Gangá*. As nothing belonging to the world can be greater than *Gangá*, I promised to come myself and reside between the banks of the *Caveri* whereby in effect the *Caveri* should have a pre-eminence over the Ganges, to fulfil which promise I am come here, and cannot go to your town, VIBHUSHANA ! but at that you must not be sorry. VIBHUSHANA expressed a wish to remain ; but was forbidden, and a promise of protecting his town being added, he went to *Lanka*, and resumed his reign. D'HERMA BRAHMA had many additions made to the shrine.

10. The domain round *Sri-rangham* was two *yojanas* (20 miles) : those living within it are destitute of sin. Praise of the *Chandra pushkara tirt'ha*, or sacred pool. Praise of the *Vilva tirt'ha*, wherein SUKRA performed penance ; which will even remove the crime of killing a *Bráhma* ; the *Jambu tirt'ha* where PARAMESVARER performed penance. *Aswa tirt'ha*, INDRA performed penance there ; it removes all sins against matronly chastity. *Palávasu tirt'ha* removes all evil contracted by living in the midst of vile persons. Details of other tanks and their virtues. Mention of persons who had crimes removed at *Sri-rangham*, among them being NÁREDA to whom the narrative is professedly made : persons to whom the *Mahatmya* is to be read : that is, good *Vaishnavas* alone. Advantages of having it in the house, benefits derivable from hearing the *Mahatmya*. As for example, if a *Cshetuya* wishes for a kingdom, he will obtain one and the like in proportion to other kinds of people. In conclusion ISVARER praises NÁREDA for his patience, and piety, in listening to the narrative, offering to add more if required. NÁREDA in return declares that by the recital his knowledge is perfected, he wishes for no more. The *Sri-rangha Mahatmyam*, it is then said, was translated from the *Grant'ha* of the *Brahmánda Puranam* by APPIVACHARYAR.

5.—*Delhi Maharajakal kaifeyat, or an account of the kings of Delhi.*

Palm-leaf Manuscript, No. 233. Countermark 79.

When VIKRAMA'DITYA (to whom is given a profusion of titles) reigned, D'HERMA rája had left the earth at the end of the *Dwápara yuga*; he left PARIKSHIT ruling down to C. Y. 126, JANAMEJEYA 77 years; SIVAKA mahárája 80; RAJENDRA 45; SARANGADARAN, with whom the *Chandra vamsa* ended. Then follows PURURA MANTATHA 83 years. Next MATHIPÁLA mahárája ruled 25 years. LOGITHA mahárája 53; GANGADHARA 56; VAMA DEVA 53; TRINETRA 56; PARTIBA VIJAYA 72; PURINATHA 53; PUSHPA GANDRA 58; ATHIYARAYER 58; PADMA GANDRA 49; UTRIJA RAGHAVA 54; AIVENTHI 54; BAUVUMA 55; SUDRA CARTICA 65; ASAGAYA SURA VIKRAMA'DITYA 2000 years; in all 3179 years. SÁLIVA'HANA 70 years; VIMALA KETHANA 58. BHOJA rája, conquered the north, and ruled over the south. KANAKA RAYER of *Cambira desam* was his minister, and at the head of 63 other persons; afterwards settled as accountants, of whom details follow, with the names of the towns in the Carnatic where *Agraharams* were established for them. The sixty-four families of Bráhmans, thus introduced into the Carnatic, from the north, became the settled accountants, and arbitrators of boundaries. They conducted their accounts in the *Girvanam* language, (Sanskrit in the Balbund character). BHOJA rája ruled 66 years, from Sal. Sac. 188, 128, to S. S. 194, his rule ended in *Caliyugam* 3373 corresponding with Sal. Sac. 194. Next ruled RAJENDRA 71, MADHAVA VARMA CHOLAN 31, PANDIYA 60, VIRA CHOLA (also called CHERAN) 51, DEVA CHOLAN 29, SORNA CHOLAN 20, RAJA CHOLAN 41. He was also called CALI CALA CHOLAN, DEVENDRA CHOLAN 60, MARTANDA CHOLAN 65, RAJATHI rája CHOLAN 33, PALALA 30, VIRA PALALA 41, in all 532 years, agreeing with *Cali yuga* 3905, S. S. 729. CHENNA BALALLAN; in his time a famous *annicut* (or aqueduct) was formed from the *Cavery* for irrigation, all the 56 kings except VIKRAMA CHOLAN king of *Cashmir* contributed, and his share was divided, and borne among the remaining 55. As his quota was afterwards brought, that was appropriated in rebuilding an *Agraharam*, that BHOJA rája had caused to be constructed at *Chatur Vedamangalam*; which during the ascendancy of the *Jainas* had been allowed to go to decay, and the king dissipated the *Jainas*. The *Agraharam* received the names of *Vikrama Chola Puram*, *Tanniyur* and *Cauveri Pakam*. After which the *Cashmir* king went away. CHENNA BALLALA ruled 41 years, VISHNU VERDHANA 40, RAJA BALLALA 51 years, IRTHIYA BALLALA 41, VIJAYA 41; other names of BALLALA

kings, running into the rayers are given, with a total of 736 years. Corresponding with *Calī yuga* 4641, Sal. Sac. 1462, PRAVUDA DEVA RAYER 21, other rayers (not in correct order) for 80 years down to C. Y. 4721, Sal. Sac. 1542, so far the rayer dynasty; afterwards that of the Muhammadans.

There follows a story (not complete) founded on the question "whether the learned, or the vulgar, are to be blamed in the impositions practised under the sanction of the popular system of idolatry?"

Also a memorandum from one of the Colonel's Agents, as to MSS. and documents previously supplied.

It states that PERIYA VIRAPA NAYAKER son of PERIYA KISTNAMA NAYAKER conquered the king of *Mavalivanam*, and also *Mysore*. It has the singular statement that SATYAVRATA was a *Pandiya* king of *Madura*, and that the story of the little fish, had its site at *Madura*, being the *Matsya avataram*, on which account it says the *Pandiya* kings used the fish banner, or umbrella. It may be noted in passing that the 18th book of the *Bhagavatam* places the site of SATYAVRATA's penance in the *Dravida-desa*, or Tamil country.

Remarks. The last memorandum has little or no use, beyond the two items selected. The preceding one is merely a story (not complete) ascribed to KRISHNA RAYER's time; tending to illustrate the easy credulity of men as imposed on by ascetics, mistaken for gods. This tale may have its use in a series of tales; but is quite irrelevant to the title of the manuscript. The first article does not correspond with that title except in a brief allusion to the race of D'HERMA rája at the beginning. What follows is not of much consequence except as to the introduction of the 64 *Bráhmaṇ* families settled in the Carnatic. Concerning this settlement other illustrations will appear; and it is similar to the mode followed in *Malayalam*, according to the *Kerala Ulpāti*. Whether Brahmans had a footing in the south of India before that time is, at the least, doubtful. In other documents the matter will be further elucidated. The abstract given of the MS. is almost a translation; it has evident, and very gross anachronisms, and I am afraid none of its dates can be depended upon. It contains only four and a half palm-leaves quite fresh and in good order; by consequence not needing restoration.

6.—*Palm-leaf Manuscript, No. 223. Countermark 80.*

Delhī Janamajeya Rája vamsavali, (or the race of JANAMAJEYA king of Delhī.)

This is a manuscript which, with a promising title, and a large external appearance, has almost nothing within, containing only eight palm-

leaves. It bears within itself the title of "the early history of the Bengal country," but it sets out with JANAMEJEYA rája of *Hastinápuri*. The appearance of the palm-leaves and of the writing is incomparatively fresh, and as it comes down to Lord MORNINGTON's government, dated Fusly 1220 it must be a recent writing.

The following is an •

Abstract.

After JANAMEJEYA son of PARIKSHIT who died about 100 of the *Cali yugam*, many kings reigned and took tribute during 3000 years. VIKRAMÁDITYA after that became incarnate, and ruled over Hindustan, Bengal, the Deccan, and the Western peninsula, receiving tribute from all kings. SÁLIVÁHANA fought with him and he fell in C. Y. 3171. SÁLIVÁHANA governed after him with equity 349 years. Many kings after SALIVÁHANA reigned down to C. Y. 4300. SULTAN SAHÁB U'DIN GHORY, from the country of *Iran* came with a large army to *Delhi*, Hegira 591, and overthrow BARTI rája, and seating himself on the throne he ruled over the country including Bengal, placing his Fouzdars in all countries. From that time Bengal became a Muhammadan dependancy. TIMUR's invasion levied extensive tribute over the *Dakshin*, down to Hegira 900. Hindustán was under TIMUR's descendants. HUMAION SHAH's defeat. ACBAR ruled well. JEHANGUIR gave the Fouzadari of Bengal to a brother of NUR BIGAM, whom he removed in anger and put another Fouzdar in his place. From that time, different Fouzdars governed Bengal. ALEMGUIR.—JEHAN SHAH. After some details, the narrative comes down to the English Bahádur Governor William. The English were merchants. The Vizier of *Luknow* collected tribute for *Delhi*. His son was SUJA UD DOWLAH. *Moorshedabad* soubadar was MAPHUZE SINGH died; his elder sister's son, Nabob SIRAS UD DOWLAH, became soubadar. Mr. WILLIAM from London in England, came and settled at *Calcutta*, and hoisted a flag, keeping in pay a few troops and traded. Affair of a gomestah and a sowcar. The gomestah went to *Calcutta* and SIRAS UD DOWLAH called the English Vakeel demanding his Nabob to be given back. SIRAS UD DOWLAH in great wrath invaded *Calcutta*; a little fighting, and the soubah took *Calcutta*. In Fusly 1210 the father of Lord CLIVE, Governor CLIVE, came with troops from *Madras* (F. 1170); battle; the Nabob was wounded by a musket ball and after a short time died. His elder sister's son was CASSIM ALI KHÁN, who continued the fighting. Division of the country with the English by treaty with SUB ALI KHÁN. Two engagements General ———; Nabob defeated; treaty; increase of English power. Death of the Nabob F. 1208; his younger brother succeeded him. The *Moorshedabad* Nabob

died. Lord MAUIT sent General LIXON, who went to *Delhi* and took it, and they kept the Padshah by their side, regulating the police (for government). They took a sunnud from the Padshah, acknowledging their authority over all things. Such of the Hindu sovereigns as paid them homage they retained as tributaries, and fighting with those who resisted them down to F. 1220 (date of the writing), they continue still to govern the country of Bengal.

Note. From this abstract it may be seen that though the MS. contains nothing not otherwise known, yet that it is in some measure curious, and as such perhaps worth translation.

Professor WILSON's notices of this, and the foregoing manuscript, will be found in Des. Catal. Vol. I. pp. 200—1 : and are as follows.

XIV.—*Dilli rāja Katha.*

Palm-leaves.

“ A short genealogical account of the descendants of ARJUNA, and a few Hindu princes, and some account of the reign of KRISHNA RÁYA of *Vijayanagar*.

XV.—*Janamejaya Vansavali.*

Palm-leaves.

“ A short account of the family of JANAMEJAYA the great-grandson of ARJUNA.

7.—*Palm-leaf Book, No. I. Countermark 953.*

Inscriptions at the Vaishnuva fane of Conjeveram,

On the *Sampanci* sacred wall, and on the southern wall, on the hill.

1. Inscription of VAIRÁJA TIMMAPA, Sal. Sac. 1413 : commemorates a gift by VAIRÁJA TIMMAPA of 4500 fanams (of what kind not specified), to be given yearly at the *Divala* and *Upáhit* festivals for the expenses of processions, and for furnishing the usual offerings of ghee, sugar, and other matters for making sacred viands, as customary in *Vaishnava* fanes.

2. On the sacred hill, on the *Sampanci*, and the southern wall.

Inscription of NAGAINA NAYANI of *Mucapalam*, Sal. Sac. 1409. A gift of ghee and other matters, for lights and offerings to be raised from the revenues of a village called *Tiru pani pillai*, made in the time of SALUVA TIMMA of the race of NARASIMHA RAYER.

3. On the sacred hill, below the *Sampanci* on the southern wall.

(In Telugu). Inscription of SALUVA TIMA RÁJA, Sal. Sac. 1403. TIMA was the son of SALUVA *Saluva Malliya deva maharāja*. Gift of 7800 fanams for four kinds of service in one fane, and two kinds in another fane to arise from the products of cultivation.

4. On the south side of the tower, on the *Sampānci*, below the southern wall.

Inscription of TIRU VITHI SĀNI the daughter of AMMANI, dated in Sal. Sac. 1408. Gift of 300 fanams for conducting a certain ceremony of singing, &c. at the time of the gods' rising up in the morning after sleep.

5. Inscription of NARANA PATLA VĀRI the *Puróhitan*, or *Bráhma-man-adviser* of KRISHNA RAYER, dated in Sal. Sac. 1436. Gift of ten thousand fanams, arising from the products of cultivation, for offerings before the god, eight times daily, of ghee, and various other articles specified.

6. Dated in Sal. Sac. 1528, during the rule of SRI VIRA VENCATAPATI AYYA-DEVER (of *Pennacondai*?) by ANUMAYA ANNAYANGAR, son of LALAGA NAYAKA of the *Cauri* caste people of *Malliya vanam* near *Vijayanagara* of 365 gold hunns for the 365 days of the year, for the gift of two large tureens of rice to be offered to the two images and the overplus of the expense to go to the inferior temple attendants.

7. Dated in Sal. Sac. 1123, donation by UDANDA RAYER ULAGAPPEN of 840 fanams for the conducting certain ceremonies on the monthly recurrence of the *Nakshetra* (lunar mansion) of his own birth, and that of his mother. (It is of early date, and the title *Ulogappen* means "father of the world.")

8. On the sacred hill, on the southern side of the shrine (*Vimānan*).

Inscription of TIMMA rája son of SALUVA GUNDDU RAYA U'DIYAR, dated in Sal. Sac. 1385 gifts of some land for the conduct of offerings.

9. On the southern wall facing the street in which the car is drawn at festivals.

Inscription of the merchant CRISHNAMA CHETTI dated in Sal. Sac. 1458. What was given not known, as it is stated that the remaining letters of the inscription have become illegible.

10. On the same wall.

Inscription of KOPPU NAYANI a disciple of TATTÁCHARYA, dated in Sal. Sac. 1467. Gift of 3750 fanams for offerings to be conducted on the eleventh day of every lunar fortnight.

Note. The above palm-leaf MS. is badly written in small letters, and the palm-leaf is in some places eaten away. It is therefore restored on paper, as some of the dates and names will be useful in elucidating a few obscure points in the more modern portion of the Peninsular history.

8.—*Palm-leaf Book, No. 232. Countermark 98. Chengi Rajakal Kaifeyat, or account of the rajas of Ginjee.*

This is a MS. of 28 palm-leaves damaged by worms. It is written in Tamil verse of an easy kind. Its chief object is to celebrate the heroism of the last of the rajas of *Ginjee*, of the dynasty proceeding from the original viceroy from *Vijayanagaram*. The final defence of the fort of *Ginjee* was very obstinate. According to this poem the raja headed his troops in person, and when he found himself no longer supported by them he rode among the Muhammadans, dealing destruction around him, until overpowered and slain. This rashness the writer magnifies into extraordinary heroism.

Note. As the manuscript is in a state of incipient destruction it has been restored.

Prof. WILSON has very briefly noted the MS. in *Des. Catal. Vol. I. p. 207, Art. xxvii.*

6. MANUSCRIPT BOOKS.

9.—*Manuscript Book, No. 50. Countermark 1019.*

Section 1. Copies of Tamil inscriptions at Sri-rangham near Trichinopoly, and other places of the Chola desam.

No. 1. Date Sal. Sac. 1581, commemorates a donation by CHOKA NATHA NAYAK, of the race of VISVA NATHA NAYAK, to five classes of people of an elephant, two horse-tail fans, a white umbrella, a palanquin, a tent; to be used in the public solemnity when the image of *Seventes-värer* fane should be carried out in procession, and with a view to obviate some irregularities that had occurred in such festival processions.

No. 2. Date 1599 of *Aruronar* (unknown era) gift by VIRAPA NAYAKKAR in the time of VENCATA DEVA maha rayer, of land in the villages of *Conal* and *Pallava ruram*, for the continual conduct of certain festivals connected with the above fane.

No. 3. No year, TIRUMALA NAYANUR and VILLUMIYA NAYANUR, gave certain gifts to the fane; the exact nature of which cannot be ascertained, as the copy of the inscription is imperfect.

No. 4. A gift in the time KULOTTUNGA CHOLAN (year not specified) of certain lands to the above fane, by a union of several respectable leading men.

No. 5. One ARAN a *rakshasa* being afflicted with *Brahmahatti*, did penance to SIVA. In proof of which there are certain remains near to *Rajendra Chola* pettah, and two gigantic images of 20 yards in height, and 12 yards in circumference.

No. 6. Date Sal. Sac. the figure for one thousand, and some other figures blank. VIRA PRAVUDA rayer son of VIRA VIJAYA rayer Mahá rayer gave a large extent of waste land, near *Rajendra Chola pettah*; the produce to be for ceremonies at the festivals of certain fanes, three in number.

No. 7. Gift of land belonging to rája KEMBIRA CHOLA PETTAH, by the people of the town, attested by the names of five among them. No date.

No. 8. Inscription in the village of *Pedu vayi tuli*. In the seventh year of RAJENDRA CHOLAN, a chief (titular style only mentioned) pressed certain bricklayers, and ironsmiths, and by their means made some additions to a fane. Inscriptions incomplete.

No. 9. Inscription on a stone at *Vettu vayi tuli*; the dimensions of the stone are given, but the inscription itself seems not to have been copied.

No. 10. Same town, in the 20th year of SRI KULOTTUNGA CHOLA DEVER. The letters are become illegible, copy therefore incomplete: it relates to a gift of some extensive land near to *Trichinopoly*.

No. 11. Same town of *Vettu vayi tuli*, date Sal. Sac. 1608; RANGA KISTNA MUTTHU VIRAPA NAYAKER of the race of VISVANATHA NAYAKER: certain repairs, by his order, of structures in that town originally built by *Chola* princes, which had gone to decay.

No. 12. Date Sal. Sac. 1240, 25, the name of the donor obliterated; gift of land to PRASARMA VENCATESVARA SVAMI.

No. 13. Inscription in a fane of *Subramanya*, Sal. Sac. 1444, in the time of SRI KRISHNA DEVER, mahá rayer, gift of land.

No. 14. In the 30th year of RAJENDRA CHOLA DEVER, gift of a village producing ten thousand pieces of gold (*huns*).

No. 15. Inscription in *Tiru yerembesvarer*, hill fane, on the elephant gate, date Sal. Sac. 1307, gift of land for repairs of the said fane, a certain proportion of revenue given, by whom not stated.

No. 16. Dated in the 3rd year of SRI KOVI rája KESARI PANDIYAN, the remaining letters are stated to have become illegible by time.

No. 17. Dated in the 5th year of SRI KOVI rája KESARI PANDIYAN; letters become illegible.

No. 18. Dated 70th year of the same (but supposed to be an error for seventh year) appropriation of a village to a fane of *Agnésvara*, incomplete.

No. 19. Dated in the reign of SRI KOVI rája KESARI PANDIYAN, and in the seventh year of KULOTTUNGA CHOLAN, (thus intimated to be contemporaries,) gift of land in *Vayalúr*.

No. 20. Dated in the reign of KESARI PANDIYAN, and third of KULOTTUNGA CHOLAN, gift by PILI VANAY UDIYAR, son of MATHURANTACA UDIYAR, of certain customs from produce of lands. Short *Grantha* addition.

No. 21. Dated second year of RÁJA RAJÁ DEVER, gift of land for maintaining lamps in a fane, by whom not mentioned.

No. 22. Dated sixth year of KOVI KESARI PANDIYAN, gift of land for the internal ceremonies of a heathen fane.

No. 23. Dated third year of VIRA RÁJENDRA DEVER, who is either the subordinate of KOVI KESARI PANDIYAN, or else the same with an additional title; the wording is obscure; gift to the fane of *Villumiya dever*, for the keeping up a perpetual light with *neyi* or butter oil.

No. 24. Inscription at *Nanga puram* in the talook of *Vittu Katti*, dated in the 16th year of RÁJENDRA CHOLA DEVER, gift of land by certain persons whose names are subscribed for the benefit of the fane of *Firu maranes varudaiyar*.

No. 25. Dated in the tenth year of SRI SUNTERA PANDIYA DEVER, same town, same fane, with two other fanes; from the imperfection of the copy, what was given not ascertained.

No. 26. Dated in the seventh year of RÁJA RAJENDRA CHOLA DEVER: other letters of the inscription could not be made out.

No. 27. Gift of two villages by certain chiefs, whose names are mentioned, to *Rangha*, the image at *Sri Rangham* fane, through the head *bráhma*n of the class of *Rámanuja* of *Tripety*.

No. 28. Dated in the 30th year of SRI RÁJA DEVER, gift of six marcals of grain for each rice field, and a quarter fanam each field of other kinds to go towards the celebration of the marriage of the god and goddess of MATHUESVARA fane, and the conduct of other festivals from VENCATAPATI TAYER, son of VIRA VALLALA RÁYA DEVER pre-eminent rája of the north shore. It is a stone inscription in the fane in *Vélur*, of *Vittu Katti* talook.

No. 29. Date Sal. Sac. 1629, (A. D. 1707.) Gift of customs of a half measure out of every calam (96 measures) of rice from one hundred and eighty villages, from three persons (Hindus), who from their titles appear to have held office under Muhammadans, to SRI VIRA NARRAYANA SWAMI, of *Manár Kovil*, in the *Manár* district.

No. 30. Dated sixth year of SRI RÁJA RÁJA DEVA UTTUNGA CHOLAN; imperfect, nothing further can be made out.

No. 31. Dated second year of SRI RÁJA RÁJA RÁJA DEVER; at *Pra-panja Pichaita giri*, where AGASTYA formerly dwelt, and which had sunk lower down into the earth. CARI CALA CHOLA, coming thither,

saw a golden-colored chamelion-lizard, which he wished to catch, but it entered into a hole, in digging up which blood was seen, and a form of SIVA appeared; by reason of which appearance, a fane was built on the spot; and this having decayed, the aforesaid RÁJA DEVER (as far as can be made out) restored the said sárine, and gave for that purpose thirty thousand *Vélis* of land, (each *Veli* containing five cawnies, the whole being upwards of one hundred thousand acres.)

No. 32. Dated in the tenth year of the CHOLA RÁJA KESARI MANDIYAR: some letters and words wanting. It is a gift of village lands; but for what object does not appear.

Translation.

No. 33. An inscription in *Mel Pallur*, or (upper *Pallur*), dated Sal. Sac. 1439, (A. D. 1517.)

The ruler of the entire world HARIYA RAYER VIPADAN, faultless in speech, taking possession of other countries, never relinquishing his own, the south quarter the excellent courageous ruler SRI VIRA KRISHNA RAYER, the great emperor, the restorer of the *Sóma-sula* tax, and of the other taxes of the *Chóla-mandalam*, and of the *Saiva* and *Vaishnava* temples, (a number or part of a name) having taken certain countries and conquered VIRA PARCHUNAN the son of PRATÁPA RUDRA the *Gajapati* prince, and certified the conquest in the presence of MALLICARJUNA (the god at *Vijayanagaram*), gave four thousand pieces of gold, for the service of the god MALLUMISVARA NAYANAR of this town; a Sanskrit *śloka*, in praise of the giver.

[The above is as near a translation as can be made out: it is of some use.]

No. 34. It bears the two names of SRI KOVI KESARI PANDIYAN, and SUNTERA PANDIYAN, seventh year of reign: title of a ruler on the south shore. (The remaining portion could not be recovered by the copyist from the original stone.)

No. 35. Inscription cut on stone in the fane at *Ambúr*. Dated in the second year of KULOTTUNGA CHOLA DEVER. Gift to ÁRAKE'SVARANUDIYA NAYANAR, the image of 'AMU'R fane from AMUTA KADI-YUDIYAR RÁJA of the north bank (of the *Caveri*) of a thousand (what not mentioned), in free gift (therefore must be land) in the village for the service of the fane of *Tirūvake'svaramudiya Tambiránár*, the same image, with an addition of epithet.

No. 36. Dated in the fourteenth year of SRI KOPA KESARI PANDIYAN: imperfect.

No. 37. Gift to *Niluvanésvara Tambiran* from KE'SARI PÁNDIYAN, the giver of his own weight in gold, and a heap of vestments like a hill; a courageous warrior, and ruler of the three worlds (*Tribhuvana Chakraverti Nayanar*). He gave one hundred gold *huns* for the use of VARADA NAMBI, the head *bráhmón*, to the temple females, and other temple attendants.

No. 38. Dated in Sal. Sac. 1112; gift to NILIVANAMUDIYA NÁYANUR of fifty gold pieces, by the whole of the people of *this* village (name not given) for the celebration of the marriage of the said god in the month of April.

No. 39. (Very short and perfect) gift of an elephant vehicle by the head man of *Mathurántacam* in the country of RAJENDRA CHOLA of the north bank (supposed of the *Caveri*) to whom, when, or for what object, not stated.

No. 40. A few Sanskrit words in Tamil and Grantha letters, without connected meaning, copied from the inner building of a fane of *Ganga-Kunda-puram* in the *Udiyar Palliyam*.

Manuscript Book, No. 14. Countermark 768.

Section 1. Account of Pandoo coolies (Pantu curzis) in the Jaghire, and Arcot Districts, written from different verbal accounts.

This paper contains an account of certain *subterranea*, or excavations, as if they were tombs, discovered at various places: of the exact nature or character of these pits there appears to be no certain knowledge; but the writer has collected, and stated, the traditionary accounts of people near the places where those excavations were found, by which they are ascribed,—

1. To a desire of obtaining shelter from a predicted shower of fire, about the beginning of the era of *Sáliváhana*.
2. To certain pigmies that lived towards the end of the *Dwápara yuga*, who constructed for themselves these dwellings, under ground.
3. To the five *Pándavas*, as a refuge from the persecution of DURYOD'HANA.
4. To the votaries of a certain goddess named NILA-MUCARI', who offered to her monthly sacrifices therein.
5. To the *Vedar* and *Curumbar*, (hunters and savages), of former days, as places of protection, for their wives and children, from wild beasts.
6. To certain men in the time of RÁMA, who had monkey's tails, whence these pits are by some called *Vali-Cudi*.
7. To *rakshasas* (or evil beings) who constructed these places of safety for their wives and children.
8. To a custom of early times after the deluge, when men lived so long as to be a burden to themselves, and their relatives, so that the latter put them in certain earthen shells with a supply of provisions and left them to die.



These excavations are stated to be of various fashions, and sizes ; and some have the appearance of being tombs of great or distinguished men. Tradition states, that great wealth was most certainly discovered and carried away, from some of these excavations.

Section 2. An account of Tondaman Chakraverti in the district of Cānchi (Conjeveram).

There were forty-four generations previously of the *Chola* race, who were persons of self-government, but the last of them *KULOTTUNGA CHOLAN* (who had only a son and a daughter), having killed the son of *CAMBAN* the poet, the latter killed the king's son, and the king afterwards formed an intercourse with one of the female attendants of his court, and had privately a son by her, who was named *NAGI NAGA RAT-TANAM*. The child was exposed in a golden vessel on the banks of the *Caveri* river, and was discovered by the *Bráhmans*, and head officers of the king, who recommended it to the king for protection, as being like him ; and from an *adonda* flower being near the child they called it *Adondai*. The king gave it in charge to his queen, to rear it up ; who readily undertook the task. The king's *Mantiri* (or minister) was alone somewhat instructed in the secret. The child proved to be possessed of heroic qualities. On consulting how to give him a kingdom, an eye was cast on the country northward, wherein the *Curumbar* had constructed twenty-four forts, being an immense forest (wild or open place). *KULOTTUNGA CHOLA* fought with the wild people (*Curumbar*) ; but could not conquer them. *ADONDAI* his illegitimate son, with a great army, fell on them, and conquered them to extermination. *KULOTTUNGA* then came ; and, having the forest cleared, founded the distinguished town of *Cānchi puram*, in which he built a fane, and dug a channel for the river *Pálar* to flow through, or near, it. There being a deficiency of inhabitants, *KULOTTUNGA* gave his minister much wealth ; who, going to other countries, brought men and women, and had them married together, according to their respective tribes or castes. By way of affixing a stigma on the newly conquered country, the minister recommended that it should be called *Tonda mandalam*, "the land of slaves." But the king, without penetrating his minister's design, called it *Tondai-mandalam* ; and gave it to his illegitimate son *ADONDAI* ; who was accordingly crowned in *Cānchi* ; and, as he had conquered the ferocious people, the former inhabitants, he acquired the additional epithet of *Chakráverti*. From that time the former name of the country (*Curumbar b'humí*) became extinct.

Remarks. This short paper has its value, as being a brief and unvarnished account of an historical fact ; otherwise variously and

verbosely told, with much of superfluous fiction and rhetorical ornament.

Section 3. An account of Candava rayen, and Chethu rayen the two sovereigns of the Vannier (forest race, a tribe of low cultivators) who ruled in the fort of Tiruividaī Churam.

This fort was in the district of *Chingleput*, and this account was taken from the mouth of one named SAHADEVEN-NATTAN.

Anciently the *Curumbar* ruled in this country; ADONDAI CHOLAN came from *Tanjore*, and destroyed them; and, having acquired the title of ADONDAI CHAKRAVERTI, he established in their place the *Kondaī Katti Vellozhar*, (agriculturists who bound up their hair as women do.) In those days the *Vannier*, or *Palli* people, by permission of the ruler of the country built this fort for themselves, as their own. But they paid tribute to the sovereigns of the *Andhra*, *Carnata*, and *Dravida*, countries. No written account of their race has been preserved; but of their posterity CANDA-RAYEN, and CHETHU-RAYEN, came to the government. Being skilful men they built their old fort very strongly.

The measures of that fort, as now found are from south to north 1141 feet; east to west 1200 feet. The breadth of its outer wall was 20 feet. Around it there was a moat thirty feet broad. Besides this outer one, there was an inner fort, and a palace on the top of the hill.

The upper fort was east to west 250 feet; south to north 195 feet.

While ruling with considerable power, they rejected all claims of customary tribute from superior kings. They were both illustrious; but CANDAVAN-RAYEN, was the most warlike of the two. He fixed alarm-stations on eminences, at certain distances, around his capital. There was no other king like him. When the rayer came to invade him, as the drums were beaten at different hill-stations, the rayer did not know in which the chief was, and at length the latter, watching his opportunity, fell on the rayer's forces, and made great slaughter. The rayer's general, being greatly incensed, came with a greater force; and, during four months, an uncertain war was carried on; the chief's place not being known; while, night and day, he harassed the troops of the invader. The rayer now desisted from open war; intending to effect his object indirectly. CANDAVAN-RAYEN then greatly vexed the agriculturists, that ADONDAI CHAKRAVERTI had placed in the land. The *Vellarzar* in consequence arose in a body, and went to KRISHNA RAYER, who sent the *Wiyalavar* (the people of a POLIGAR) against CANDAVA. That POLIGAR being beaten retreated, and sent spies to inspect the fortress, that he might discover how to overcome CANDAVA.

The spies discovered that at intervals of rest from war, CANDAVA was entirely enslaved by the leader of a band of dancing girls, and announced the circumstance to the chief of the *Wiyálavár* tribe. He came to CUPÁCHI, and gave her the offer of four bags of gold, as a bribe, to cut off the head of CANDAVA; to which, induced by avarice, she consented: appointing a time for the POLIGAR, and his people to come. They came as appointed. CUPÁCHI gave CANDAVA poison, in a cake, from her own hands; which speedily took effect. She cut off his head, and putting it in a dish, brought it to the appointed place, and gave it to the POLIGAR's people. After satisfying themselves of the identity of the head, they cut off the head of the traitress, and went away. In the morning his younger brother, CHETTHU RAYEN, hearing this news, and being extremely grieved, took the hundred companions of CUPÁCHI; and, carrying them to a tank, after tying them in a row like cows, he cut off their heads: in proof whereof that tank is to this day called *Pinnai-yéri* (the lake of corpses). He also burnt down their houses; and the place is to this day called *Cupachi-kunnu* (the heap of *Cupachi*); and is a place of desolation. He also took the watchmen, who had neglected their duty, and cut off their heads, at the above tank. The WIYÁLÁVAR-POLIGAR came with his troops, and fell on the fort. During twenty-six days, fighting was carried on, with great loss on both sides; till, at length, the attacking POLIGAR took the fort; which, after that time, became a dependency of the *Anagúndi* kings, who protected the agriculturists.

The truth of the preceding narrative is attested by all the people living around about that neighbourhood.

Section 4. An account of the Pagoda of Tiruvidaichuram (the above fort) in the Arcot district.

The original date of this place is remote in antiquity; the fane was built by KULOTTUNGA CHOLAN. It was repaired by other CHOLAS, and RAYERS. The *S'hala Purana* is lost. But the legend is to this effect, that an *Apper* and *Sundarar* (the poets) were on their way to sing the praises of *Karú Kundam* (a hill fane); they inquired of a shepherd (at this place) if there was any emblem of SIVA near, who pointed them to one under a tree, and disappeared. Considering this as an apparition of SIVA, they chanted ten stanzas concerning the place; which are in existence down to the present time. As the *Chola* king adorned and endowed this fane, there may be an inscription; but it is reported to be in recondite Tamil. They further say that, directly under the view of the bullock of SIVA, very much wealth is buried.

There certainly is some wealth concealed. If well examined, it would be found: it would not be needful, to that end, to damage the walls, or structure, of the temple, but only to remove the flooring; no other damage would accrue to the temple.

Section 5. An account of the ancient gold products of Callatur and notice of the history of that place.

Anciently this was the second fortress of the *Curumbar* chieftains. After they had been destroyed by ADONDAI CHAKRAVERTI, the fort was in the hands of ten persons, who rode in palankeens, from among the *Kondai Katta Velazher*. They were subordinates to the *rāja* and regulated the country. A poor *Puróhita Bráhmaṇ* came to the fané of *Tiruval isvarer*, and bought a piece of ground at *Callatur*; the god afterwards personally appeared to him, and instructed him to give the god notice when he ploughed and sowed the said field. He did so; when the god came, on his *Váhana*, and, after sowing a handful of seed disappeared. The other corn was sown by the *Bráhmaṇ*. The corn sprung up luxuriantly; while corn sown by other people was very weak. The *Bráhmaṇ*'s corn grew higher than a man could reach, but without earing; to his great grief. A *Velazhan*, passing by, being struck by the singular appearance of the corn, plucked a stalk, and, opening it at the top, found an incipient ear of gold, in consequence of which he enticed the *Bráhmaṇ* to an exchange of products, ratified by a writing. A long time after the corn threw out ears, and the surface presented a golden color. The rayer of that time, named HARI HARI RAYER hearing of the circumstance, came himself, with an army; and, having it reaped, distributed the gold in the usual proportion of corn, to the cultivator, the proprietor, and the king. The product was beaten out on a brick flour, prepared for the purpose; such a flour is named *Cal-lam*; hence the town came to be called *Pon Velainta Callatur*, or the village where gold grew *ds* corn. Remains of the brick floor are still to be seen; and the circumstance is traceable in other names of connected places. Some remains of the chaff of this harvest, are said to be preserved in the treasuries of neighbouring temples. From the time of TONDAMAN CHAKRAVERTI down to KRISHNA RAYER's time, the fort was under the management of the *Velazhar*, or agriculturists. KRISHNA RAYER demanded of them to build an *Agraháram*, which they refused to do; and he, in consequence, waged war against them, with great slaughter, for six months: when they consented to his request, and built two choultries; one of which was called by the name of KRISHNA RAYER.

Historical Indication.

Divested of fable, the probability is that a gold mine was anciently discovered in the field of a *Bráhma*n, and worked by one of the rayers. The closing circumstance is within the range of credible tradition.

Section 6.—Accounts of the places of hidden treasure, in the Arcot District.

1. In *Paduvúr*, there are four *Panta curzis* in which, they say, treasure is contained.

2. In *Tiruvidaichuram*; in a *Pediri Kovil*, under the image of *Durga*, there is stated to be buried treasure. There is a sort of proverbial saying to this effect current among the country people thereabouts. Notice of an account given to a servant (*gomasteh*) of the surveyor general of seven vessels of buried treasure, and of a human sacrifice, offered by some persons who, in consequence, took away one vessel, and went to live at *Wandiwash*.

3. In *Neyamali*, they say there is hidden treasure.

4. Beyond that village near *Chingleput* the pagoda of *Tiruvadés-veren*, at *Callatur*, at *Cunatur*, *Vembácám* near *Chingleput*, *Uttara Mélor*, and some other places, there is said to be buried treasure.

Remark. Perhaps Colonel MACKENZIE's instructions to his agents included inquiries on the above subject: with one exception, as to the *Panta curzis*, I do not see that any light is reflected on past history by such traditions.

Section 7.—Ancient history of Tondamandalam, and its earlier inhabitants called *Vedars* and *Curumbars*.

After the deluge the country was a vast forest, inhabited by wild beasts. A wild race of men arose; and, destroying the wild beasts, dwelt in certain districts. There were then, according to tradition, no forts, only huts, no kings, no religion, no civilization, no books; men were naked savages: no marriage institutions. Many years after, the *Curumbars* arose in the *Carnáta* country: they had a certain kind of religion; they were murderers. They derived the name of *Curumbar* from their cruelty. Some of them spread into the *Dráviḍa désam*, as far as the *Tondamandata* country. They are now found near *Uttara Mélor*; but more civilized. They ruled the country some time; but falling into strife among themselves, they at length agreed to select a chief, who should unite them all together. They chose a man who had some knowledge of books, who was chief of the *Dráviḍ* country, and was called *Camanda Curumba prabhu*, and *PALAL rája*; he built a fort

in *Puralúr*. He divided the *Curumba* land into twenty-four parts, and constructed a fort in each district. Of these the names of ten are *Puralúr*, the royal fort; *Callatur*; *Amur*; *Puliyár*; *Chembúr*; *Utthí Kádu*; *Kaliyam*; *Venguna*; *Icáttukottai*; *Paduvúr*. While they were ruling, there was a commerce carried on by ships. As the merchants of *Cáveripúm-patnam* sought trading intercourse with them, the *Curumbar*s built the following forts (stations) for trade: *Patti-pulam*; *Sála-cupam*; *Sala-pákam*; *Méyur*; *Cádatur*; *Alum-pari*; *Maracanám*; whence, by means of merchants from *Cáveri púm-patnam*, and the *Curumbar*, a commercial intercourse by vessels was carried on. They flourished in consequence; and while without any religion, a *Jaina* ascetic came, and turned them to the *Jaina* credence. The *Basti* which the *Pural* king built after the name of that ascetic, is still remaining together with other *Basti* and some *Jaina* images in different places; but some are dilapidated, and some destroyed by the hatred of the *Bráhmans*. They were similar to the *Jainas* of the present day; they were shepherds, weavers, lime-sellers, traders. While living thus, various kings of civilized countries made inroads upon them as the *Chola*, the *Pandiya* kings, and others; and, being a wild people, who cared not for their lives, they successfully resisted their invaders and had some of the invading chiefs imprisoned in fetters, in front of the *Pural* fort. Besides they constrained all young people to enter the *Jaina* religion; in consequence of which vexation, a cry arose in the neighbouring countries. At length *ADONDAI*, of *Tanjore*, formed the design of subduing them; and, invading them, a fierce battle was fought in front of the *Pural* fort in which the *Curumba* king's troops fought and fell with great bravery, and two-thirds of *ADONDAI*'s army was cut up. He retreated to a distance, overwhelmed with grief, and the place where he halted is still called *Cholan pedu*. While thinking of returning to *Tanjore*, *SIVA* that night appeared to him, in a dream, and promised him victory over the *Curumbas*, guaranteed by a sign. The sign occurred, and the *Curumba* troops were the same day routed with great slaughter. The king was taken; the *Pural* fort was thrown down; and its brazen (or bell-metal) gate was fixed in front of the shrine at *Tanjore*. A temple was built where the sign occurred, and a remarkable pillar of the fort was fixed there: the place is called *Tiru múli vásal*. A sort of commemorative ceremony is practised there. After a little more fighting, the other forts were taken, and the *Curumbas* destroyed. *ADONDAI* placed the *Velazhar*, as his deputed authorities; having called them into the country to supply the deficiency of inhabitants, from the *Tuluva désam* (modern *Canara*). They are call-

ed *Tuluva Vellazhar* to the present day. Some were brought from the *Chola désam*, still called *Chola Vellazhar*. He called from the north certain *Bráhmans* by birth, whom he fixed as accountants. The *Kondai Katti Vellazhar* were appointed by him. He acquired the name of *Chakraverti* from rescuing the people from their troubles. The name *Curumba-bhumi* was discontinued, the country was called *Tonda-mandalam*; and common consent ascribes to *ADONDAI* the regulation of the country.

Remarks. The writing of the above paper was a little obliterated, and I think its restoration of consequence; for it seems to me rather more important than these local papers usually are. We have in it a clear and unvarnished statement of the introduction of the *Hindus* (properly such) into the country, circumjacent with respect to *Madras*. The *Hindus* had colonized the country south of the *Coleroon* at a much earlier period. The trading from *Caveripum-patnam*; the conquest by *ADONDAI*; the introduction of *bráhmans* as accountants from the north; are matters confirmed by other papers. The *Velazhas* of the country hold the traditionary belief, that their ancestors emigrated from *Tuluva*. The *Chola Velazhas* are chiefly found in the south. They wear a lock of hair on the front of their head; not on the back, like other *Hindus*. The old *Tuluva* or *Hala Canada* language, and the *Madras* Tamil, are very nearly the same language.

Section 8.—Account of a Curumba fort at Marutan near Cánchi, in the Utramélur district.

This fort of mud was formerly built by the *Curumbas*, covering forty cawnies of ground with two boundary walls, and was long ruled by them. In the time of *KRISHNA RAYER* his dependant the rája of *Chingleput* fought with them; and, after some time the *Curumba* chief was unjustly put to death. The *Curumbas* were destroyed, and *TIMMA* rája took that fort. He gave it as a *Jaghire* to one of his near relatives, named *GOVINDA* rája. He built two *Kooils* (or fanes), and established an *Agraharam* for the *Bráhmans*.

Note. *TIMMA RAYER* was the founder of *Arcot* as mentioned in a former paper.

Section 9.—An account of Madurantacam in the Jaghire.

This place being the ancient boundary of the *Madura* kingdom was called *Madurantacam* (the end of *Madura*), in proof of which there is an image called *Madurai Chelli-ammén*. There is also a very ancient *Saiva* fane. It is said that *NALA-RÁJA*, in his sorrowful pilgrimage, came to this place; and, by taking the muddy water of that pool, was



cured of his leprosy. He built a temple there, to commemorate his cure. The tank was called by him *Vishagatirtham*. The *Chola* rāja built many other sacred edifices in this place; and he himself lived there for a considerable time. The *St'hala mahatmya* of this place is connected with the *St'hala mahatmya* of *Madura*.

Remark. As the *Madura Purāṇam* contains a reference to the northern *Madura*, it is well to know the precise locality thereby designated. The reference to *NALA* rāja is an allusion to an episode in the *Mahābhārata*.

Section 10.—An account of the ruins of a fort with seven walls (one within the other), at *Avidu tāngi*, written from verbal accounts given by *Brāhmaṇs* of *Pīra-désam*.

In the *Arcot* district, not far from *Pīra-désam**, are the extensive remains of a very ancient fort of seven enclosures. It is now concealed by brushwood, and lies waste. Gold cash, and other coins, have been found there. *HYDER ALLY* is said to have examined it, and taken thence treasure. It was built, many years after *TONDAMAN CHAKRAVERTI*, by *VIRA NARASIMHA rāja*. He appointed a very stupid *Man-tiri* (or minister). There was no investigation of affairs; and this minister buried the treasures, arising from the public revenues, and stultified the king. A certain man named *VIRAL-VENNAN*, was wounded on the head by a neighbour; and, going to make a complaint at the king's gate, could get no hearing. He thereupon went about the town beating all he met; and, as there was no inquiry, he managed to get some money, and to raise a small band of troops, with whom he took post near a burning ground, and exacted tribute from all who came to perform funeral obsequies. By this means he became rich. After some time the king went out in disguise to ascertain the state of the town, and heard a poor woman complain of having no money to pay the tribute. He inquired into the tax; and then went to the *Mantiri* to ask why it was imposed, who could give no account of it. The king sent for *VIRAL VENNAN*, who refused to come; whereupon some troops were sent against him: these were worsted, and then *VIRAL VENNAN* came, sword in hand, of his own accord, and falling down before the king narrated all his circumstances: whereupon the king had his minister beheaded, and put *VIRAL VENNAN* in his stead. There is no other tradition at *Pīra-desam*; but possibly by going to *Avidu-tangi* something further might be learnt.

The end of book No. 14.

* This *Pīra-desam* is probably the *Pīḷa* which is coupled with *Choḍa* (or *Chola*) in the enumeration of countries in the second edict at *Girnar*.—ED.

Book No. 20, Countermark 774.

Section 1.—List of Kings in the Cali-yuga.

A few names very defective in the three first ages.

The *Cali yuga* list commences with JANAMEJAYA, and there are other names, without distinction of place or country, though we know some of them to have ruled in places very distant from each other. RAJENDRA CHOLA is dated by an inscription in S. S. 460, DEVA MAHA RAYER by inscription S. S. 1060, VIRUPACHI RAYER S. S. 1238, SALUVA NARASINGHA DEVA RAYER S. S. 1420, VIRA NARASINGHA RAYER S. S. 1391, AURUNGZEBE S. S. 1554.

The list of course does not admit of being abstracted. A few dates and names are written as specimens. The list may be of use to refer to, in comparison with other lists; and, as now restored from an almost illegible state, will admit of easy translation.

It is followed by another list, of which the ink is so much faded as to be no longer capable of restoration. From a few names which can be read it seems to be a fuller repetition; the same names appearing to occur, with now and then a name not to be here found; but it is not possible to make any thing of it, as a connected whole.

There follows a page of more illegible writing endorsed in English, as a letter; and another half page of *Pandiya* kings, of no value.

Section 2.—Account of the most ancient sages and poets, with their places and dates, in the Drávida désom.

This section with so promising a title is a mere cheat. It has a few names of ascetics and poets, better known from other authorities, without the promised distinction of time and place; and being quite worthless, the copying of it was omitted.

Section 3.—A general list of books and inscriptions.

The list refers merely to certain parts of the papers in the MACKENZIE collection, supplied by the writer of the list; and is of no permanent consequence, there being a fuller catalogue in existence. The copying was omitted.

Section 4.—Account of Pradatta rāja.

The paper commences with a declaration ascribed to BRAHMA, of the severe pain, and penalty, incurred by any one stealing even an atom of property from a fane of SIVA, which inclusive of minor matters, involves the being sent to *Yama puram* (hell), and the being sunk in a stratum of fire. There are other details of the evils which must follow the taking a bit of gold from the temple at *Arunachellum* (*Trinomallee*), and of eating any thing belonging to it, more fatal than eating poison.

In illustration BRAHMA narrates an account of the visit of PRADATTA, king of *Benares* and of the surrounding country, in extravagantly hyperbolical language, and of his becoming enamoured of one of the *Devadāsīs* of the fane at *Arunáčhellum* (or *Trinomallee*), in consequence of which his face was transformed into that of a baboon. Some of the great men said it was from an evil thought, and advised him to render special adoration to the image worshipped there, which he did and recovered a beautiful form. These circumstances BRAHMA related to SANAKA RISHI. The entering on another narrative is announced; which appears to be the one contained in the following section.

Observation.

The preceding is probably part of a legend connected with the *Trinomallee* temple; and has been evidently constructed so as to impose a superstitious dread of taking any property from that place, or of coveting any thing belonging to it: it is very well adapted to the intellectual measure of the lower class of natives; it may illustrate manners and opinions; but in any historical reference, it seems quite useless.

Section 5.—Account of Vajrangata Pándiyan.

The king of the fertile country on the banks of the *Vaigai*, one day set out on a hunting excursion to the great terror of the elephants, and other beasts, and in the course of the chase he started a civet-cat, which ran directly for *Trinomallee*, and then went round the mountain, when it fell down from exhaustion, and died; the horse (*Ganavattam*) on which the *Pándiya* king rode, also fell down, from extreme fatigue, and died. Immediately two *Vidhyádharas* (celestials) appeared and said to the king, ‘Why do you grieve, we were imprisoned in bodies through the malediction of *Durvasa-rishi*, from having trodden on some flowers in his garden; so that he commanded one of us to become a civet-cat, and the other a horse. On our asking when the spell would be dissolved, he said it would be by VAJRANGATA PÁNDIYAN.’ These two animals then attained final happiness, by the merit of having gone around *Arumachella* hill (or *Trinomallee*); but as the king did not walk round but went round on horseback, he had no part in the merit. He subsequently made over his kingdom to his son named ART’HANAN-GATA PÁNDIYAN, and became an ascetic; residing near the hill. His son sent him much money, with which he greatly added to the splendour and beauty of the fane. On walking round it, one day, the god SIVA met him in a visible form; and told him that he also had been imprisoned, having heretofore been INDRA, who threw his diamond weapon (*Vajranga*), at him (SIVA), in consequence of which he was condemned to live on earth as VAJRANGATA PANDIYAN; but that now from the

virtue of his munificent acts to the temple, he should be readmitted to his former state, and again become DE'VENDRA.

Observation.

The composition of this, like the former, is in poetical and hyperbolic language ; but with incorrect orthography. A *Pándiyan* king is otherwise understood to have repaired and beautified *Trinomallee* ; and on this circumstance the fable is constructed. It seems to be a portion of the *Trinomallee St'hala-purána*, as may be ascertained when that *Purána* comes to be examined. But it is of little use beyond illustrating native opinions ; and was restored because found in a book greatly damaged by time ; though in itself, this section remained quite legible.

Section 6.—A list of Chola kings.

The list contains a few names only, without any dates ; the transcribing them has not appeared to be of any importance.

Preface to the first part of the History of India composed by NARRAYANEN Astronomer (of the *Ananta Kón* race).

(This is not entered in the table of contents at the beginning of book, No. 20.)

This book was written at the request of Col. W. MACLEOD of Arcot, during Lord BENTINCK's government of *Madras*. After the usual poetical invocation it gives an account of the cause of its being written, the different powers and kingdoms to be included : and the authorities consulted in the compilation. The work proceeds to narrate the creation of the elements of all things, by NARRAYANEN ; the formation of the *Brahmandam*, or mundane egg, and the division therein of the orders of beings and things. An account of the different *yugas*. Formation of gods, *asuras*, and mortals. *Avataras* of VISHNU. Eclipses ; fasting at that time peculiar to India. After some Indian astronomical details, the writer states his preference of another system, that of the earth turning on its own axis, and revolving round the sun, with different latitudes, (evidently derived from intercourse with Europeans.) Geographical divisions of India, on the native system ; some mention of *Nipál*, *Moghulstan*, *Turkishtan* and *Hindustan* proper. This leads to mention the birth of KRISHNA about one hundred years before the end of the *Dwápara yuga* ; and his reigning in *Dwáraka*, a town which he had built on the sea shore. The end of the first book.

The foregoing is another copy, so far, of the large work entitled *Carnata rájakal*, before abstracted. Should other *Cándams*, or books, be found among the paper MSS. the whole MS. may be restored ; but the above is of no special use, being merely another copy of a portion which exists in the larger work.

Section 7. — Account of the Jain temple of Parsvana-nátha-svāmi, at Tiru Narrayanen Tónda a village, in the district of Yelvanachura Cottai.

It is in the *Vriddháchala* district: a *S'hala mahatmya*. In a certain wilderness, a kind of roots grew which *Verdars* dug up for food. One day a man of that class saw some growing in the cleft of a rock, and going to dig them up, discovered the image of the above god. A winged creature also appeared; at which the hunter, being dazzled exclaimed "*Appa! Ayya!*" The being said "I am *Appa*, and *Ayya* is in that image." The hunter asked for a spiritual vision, and had one enlightened eye given him; the report of the circumstance led to much discussion among the country people; who, on consulting, noted various marks about the hills, and concluded that it must have been a place of residence, for ancient ascetics. The king of the country, coming to knowledge of these things, treated the hunter handsomely, and had a temple built on the spot. There is then a narrative given, as having happened before this circumstance, to account for the image being found there. This forms a *Jaina* version of the *Pandiya* king renouncing the *Jaina* system for that of the *Saivas*. By this account the famous APPAR was born and bred a *Jaina*, but, through ill-treatment of the head ascetic of that system, he went away to the south, by way of the *Chola* kingdom, and became a *Saiva*. In consultation with SAMPANTA and SANTARAR, a plan was formed to convert the *Pándiyan* king, APPAR by the power of incantation inflicted on him a grievous illness, and then sent SAMPANTA, and SUNDARAR, with the *Viputhi* (or sacred ashes), saying that if he accepted these he would be cured. He replied that being a *Jaina* he could not do so. On their returning with this answer to APPAR the latter inflicted severer pain on the king; and then went personally to him, and said, if his teachers could remove one-half on one side, he would remove the other. The *Jaina* teachers being sent for, said that to use magical incantation was contrary to their religion. APPAR then promised to cure the king, to which he consented; through the craft of APPAR, and because an evil time for the *Jaina* system was come. After being cured APPAR asked of the king to allow all the *Jaina* temples to be turned into *Saiva* ones at which he hesitated; but at length being gradually overcome, and through previous ignorance of his own system he was drawn over to become a *Saiva*; and he then gave a body of troops into the hands of SAMPANTAR, SUNDARAR and APPAR; with which they displaced the *Jaina* images, and turned the fanes into SAIVA ones. But on coming to the hill in question, in this paper, as soon as APPAR ascended three steps towards it he was struck blind. Astonished he



offered some prayers, according to his *Jaina* knowledge, and had one restored; he then resumed the *Jaina* way and had both eyes restored. The *Saivas*, seeing what had occurred, carried him off; and in a brick and chunam water-course near to *Chittambam* killed him. The account closes, as being given by persons who had received it downwards by tradition.

Remark. The leading fact is historical, and every version of it, especially from opposite religious parties, may render it better defined.

Section 8.—Chronological tables of the Hindu rājās (termed Jaina kings of the Draviḍa country in the table of contents of Book, No. 20.)

A few names of kings in the first age; a few names of the solar line in the second; a few of the lunar line in the third age; in the fourth, a mixture of names, one or two of them being *Jaina*: CHANDRAGUPTA is termed a *Jaina*. The *Chola* rājās. HIMASILA a *Jaina* king. In the list of rayers, there are some names not usually met with in those lists; some dates of these, and *Chola* kings are given: the list comes down to a modern date.

A list of kings, in *Grant'ha* characters, is given; termed *Jaina* kings.

Remark. These lists, though imperfect may have some use for occasional reference.

Section 9.—Legendary Account of Cándá Cottai (and statement of an emigration of artificers from India by sea eastward.)

In the town of *Mánda* anciently the *Camálar* (artificers of 5 sorts) lived closely united together; and were employed by all ranks of men, as there were no artificers besides them. They feared and respected no king, which offended certain kings; who combined against them, taking with them all kind of arms. But as the fort in which the *Camálar* lived was entirely constructed of loadstone, this attracted and drew the weapons away from the hands of the assailants. The kings then promised a great reward to any who should burn down their fort. No one dared to do this. At length the courtezans of a temple engaged to effect it, and took the pledge of betal and areca engaging thereby to do so. The kings greatly rejoicing, built a fort opposite, filled with such kind of courtezans, who by their singing attracted the people from the fort, and led to intercourse. One of these at length succeeded in extracting from a young man, the secret that if the fort were surrounded with *varacu** straw set on fire, it might be destroyed. The king accordingly had this done, and in the burning down of

* *Paspalum frumentaceum*—LINN. *Kadra vahá*—Sans.

the fort, many of the *Camálar* lost their lives; some took to ships, belonging to them, and escaped by sea. In consequence there were no artificers in that country. Those taken in the act of endeavouring to escape, were beheaded. One woman of the tribe, being pregnant, took refuge in the house of a chetty and escaped, passing for his daughter. From a want of artificers, who made implements for weavers, husbandmen, and the like, manufactures and agriculture ceased, and great discontent arose in the country. The king, being of clever wit resorted to a device to discover if any of the tribe remained, to remedy the evils complained of. This was to send a piece of coral, having a fine tortuous aperture running through it, with a piece of thread, to all parts of the country; with a promise of great reward to any one who should succeed in passing the thread through the coral. None could accomplish it. At length the child that had been born in the chetty's house undertook to do it; and to effect it, he placed the coral over the mouth of an ant-hole; and, having steeped the thread in sugar, placed it at some little distance. The ants took the thread, and drew it through the coral. The king, seeing the difficulty overcome, gave great presents, and sent much work to be done; which that child, under the counsel and guidance of its mother, performed. The king sent for the chetty, and demanded an account of this young man, which the chetty detailed. The king had him plentifully supplied with the means especially of making ploughshares; and having him married to the daughter of a chetty, gave him grants of land for his maintenance. He had five sons, who followed the five different branches of work of the *Camálar* tribe. The king gave them the title Panchayet; down to the present day there is an intimate relation between these five branches, and they intermarry with each other; while as descendants of the chetty tribe, they wear the *punnul*, or caste thread, of that tribe. Those of the *Camálar* that escaped by sea, are said to have gone to *China*. It is added that the details of their destruction are contained in the *Calingatu Bharani*.

Remark. Here is no doubt historical truth covered under the veil of fiction and metaphor: it is particularly desirable to know if artificers really emigrated from India to the eastward. The ruins of *Manda*, or *Mandu*, remain without any records concerning that place, I believe, in any known history. The *Calingatu Bharani*, a poem, is in the MACKENZIE collection; and will come under notice hereafter.

Section 10.—Account of the Curumbars, and a Massacre of them by treachery.

Under the rayer's government the *Curumbars* ruled in many districts. They constructed forts in various places. They tried to make the

Muthaliers, and *Vellázhas*, render them homage ; to which the others did not consent ; and the *Curumbars* in consequence greatly troubled them. Still they did not submit. Accordingly in betel gardens, and in many other places they constructed very low wicket gates, so that the *Hindus* coming to them must be forced to bow on entering. But the *Muthaliers* and *Vellázhas*, instead of entering head foremost thrust their feet in first, and thus treated the *Curumbars* with contempt. As the latter had power in their possession, they vexed the said tribes. These at length went to a barber ; and, promising a gift of land, asked of him counsel how to destroy the *Curumbars*. The barber gave them encouragement ; who then went to the houses of all his tribe and engaged their services by promise. It was the custom of the *Curumbars* that, if one of their people died, the whole family should have the head shaved. One of the seniors of the tribe of *Curumbars* died : and by custom the whole tribe, at one time, sat down to have their heads shaved. The aforesaid barber, on this occasion charged all his associates each one to kill his man ; which they did, by each one cutting the throat of the person shaved. The women thus suddenly widowed had a great pile of fire kindled into which they leaped, and died ; execrating their enemies. The ruins of the *Curumbar* forts and villages are still visible ; being heaps of mould ; there are very old wells, some for instance near *Sadras* : the bricks of these wells have an appearance of great antiquity.

Remarks. What evidence is due to the tradition I cannot tell : if true, it adds another instance to the tragedies, consequent to sectarian hatred, and effected by stratagem and treachery, which are numerous in this collection.

Section 11.—Account of the Wiyalavár or Muttilyar at Nerva-palliyam.

The *Curumbars*, in the time of the rayers, built forts, causeways, &c. In that time these *Wiyalvar* came from *Ayodhya*, in the north. They brought with them two tutelary goddesses called *Angalammai* and *Wiyalammai* ; together with attendants (as supposed of these idols). These first halted at *Viápuram*. At that period one CHENNAPA NAYAK was acting with great violence, and killing many people. The rayers in consequence promised to this new tribe, that if they would remove the nuisance he would give them the district, so cleared, as their reward. In consequence, by the power of their goddess, they took those robbers and having obtained the district of CHENNAPA NAYAK, they first gave it the name of *Canda-gadi-palliyam*. Subsequently, as the *Curumbars* gave much trouble, and insulted the *Muthaliers*, the rayer made great pro-

mises to these *Wiyalvar* if they would destroy the *Curumbars*. The *Wiyalvar*, in consequence by the aid of the rayer's troops, and a thousand men of their own, destroyed the *Curumbars*. The rayer gave them great distinction for the same, and villages. They established their goddesses in two villages; and in one had also a *Vaishnava* fane. They built a palace which afterwards was sold, to discharge a debt.

Remark. This account may be compared with another book and section, making mention of the *Wiyalvar*; and this tradition, if true, adds to the proof that the earlier inhabitants of the Carnatic were destroyed, to make way for colonies of *Hindus*.

[To be continued.]

II.—*On the application of a new method of Block-printing, with examples of unedited coins printed in facsimile.* By JAMES PRINSEP, Sec. &c.

In all Muhammadan countries it is the well known custom of those who move in the rank of gentlemen to apply their seals in lieu of their written signatures to letters, bonds, and other written documents—not as we are accustomed to do it by an impression on wax, but by smearing the flat surface of the seal with ink and printing in the manner of type, so as to leave on the paper a white cipher upon a black field. It may be in consequence of this custom, as much as from religious prejudice, that Muhammadan seals are almost invariably confined to letter mottos; seldom ornamented, but, if so, merely with flowers, &c. done in outline; because such only can be faithfully portrayed in a type impression, which of course cannot at all represent a head or other relieve design.

The money of the Musalmáns was in the same manner generally impressed only with the signet or the titles of the sovereign, well adapted to a flat and thin surface of metal.

Seeking an easy and expeditious mode of making public the collection of Muhammadan coins in my own and my friends' cabinets, it thus occurred to me that by forming from them in sealing-wax or in type metal an exact counterpart of the die which had struck these rupees, I should be able to use it, in the native fashion, for producing ink impressions along with the ordinary letter type; while, as the coin itself would in every case furnish the mould, every chance of error in copying would be removed: and, though the elegance of a shaded engraving could not be attained, still this would be more than compensated by the scrupulous fidelity of the representation.

My first trial was so encouraging that I at once resolved on carrying the plan into execution on an extensive scale, and I have now prepared for the press upwards of two hundred coins done in this novel and exceedingly simple manner.

As however it will be in every respect more convenient to present them in a continued series, as an accompaniment to my tables of the value of Indian coins already published, I propose merely to introduce into the pages of the Journal a few examples of such coins as are new, rare, or from other causes worthy of particular description.

But first, in deference to the established custom in such cases, I must assign to this newly invented art some Greek polysyllabic appellation; and (without intending the undignified lapsus of a pun) I cannot propose one more expressive of the process than *Rupography*—not from *rupee* the common designation of our Indian money, nor yet from the Sanskrit word *rúpa* ‘form, likeness,’ but in a genuine and orthodox manner from the Greek *ρῦπος*, *sigilaris cera*, or sealing-wax, the substance upon which the impression of the coin is first received and which will itself serve as the printing material, if it be not desired to preserve the block in the more durable material of type metal, by a second transfer from the sealing-wax to a clay or gypsum mould into which the latter substance can be cast in the usual manner. Some sharpness of outline is lost by this triple operation, and where a great many copies are not required the *rupographical* process may be safely confined to the first stage, or simple impression on sealing-wax.

As a first specimen, then, of the capabilities of this art of *rupography* I select a coin, or rather medal purchased by myself some years ago at *Benares*. It is of HUSEIN SHÁH generally accounted the last *Súfi* monarch of Persia; for after his abdication in A. H. 1135, his son TAMÁSP held but a nominal sovereignty, the real power being usurped by MAHMUD the Afghán.

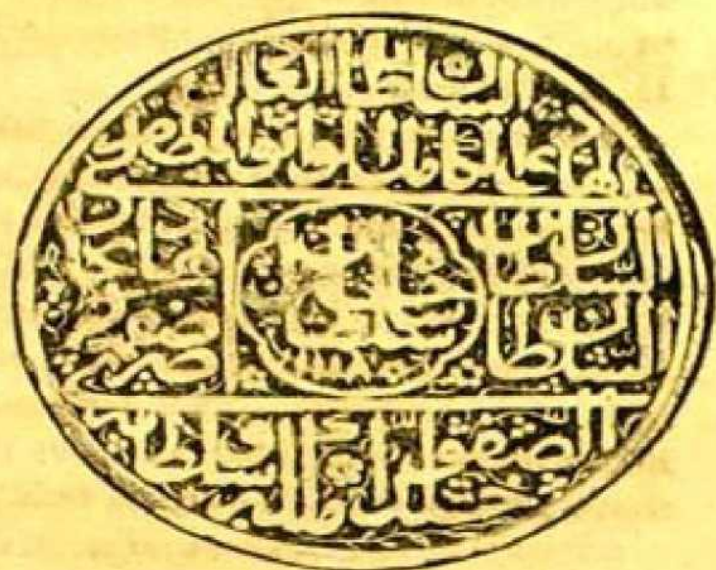
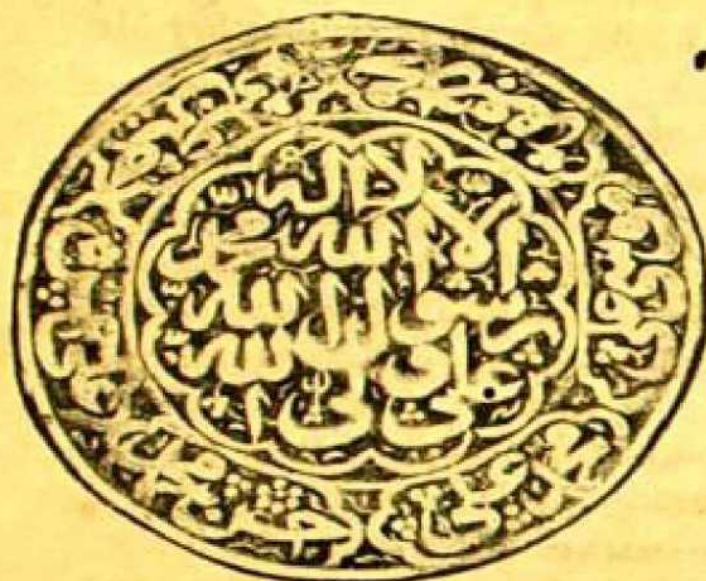
MARSDEN would designate this as one of the medals of the Persian kings properly so called, intended to be hung and worn on the neck. It had, when I bought it, a hasp for suspension; but still I do not imagine it to have been struck for that express purpose, but rather as a crown piece for distribution to courtiers on a birth-day, as is still the custom at *Delhi*, at *Lucknow* and other native courts. It is of nearly pure silver, and weighs 844.3 grains, a little short of five rupees, and somewhat above as much in value.

MARSDEN gives the drawing of another medal of the same monarch, which has merely the usual coin inscription.

The following is the numismatical description of my medal.

SULTÁN HOSEIN SHÁH SÁFFAVÍ,
reigned in Persia, A. H. 1106—1135, (A. D. 1694—1722.)

Silver.



Legend of the Obverse.

السلطان العادل الهادي الكامل الوالي ابوالمظفر السلطان بن السلطان
سلطان حسين شاه بهادر خان

الصفوي خلد الله ملكه وسلطانه ضرب اصفهان 1118

Reverse.

Area. لا اله الا الله محمد رسول الله علي ولي الله

Margin. علي حسن حسين علي محمد جعفر موسى علي
محمد علي حسن محمد

Ob.—The SULTAN the just, the spiritual guide, the perfect, the ruler, *Abu'l Mu-zaffar ul Sultán bin ul Sultan*, SULTAN HOSEIN SHAH BEHADUR KHAN, of the *Safví* race: may God perpetuate his kingdom and his dominion! Struck at *Isfahán*, 1118 (A. D. 1694).

Rev.—There is no God but God! Muhammad is the prophet of God; Ali is the favorite of God.

Margin.—Ali, Hasan,—Hosein, Ali,—Muhammad, Jásar,—Mûsa, Ali—Muham-mad, Ali—Hasan, Muhammad.

(The twelve Imáms in the order of their succession.)

Specimen II.

This is a coin presented to me by General VENTURA to complete my series of the Patan sovereigns of *Delhi*, being the only one of the founder of that dynasty which I had yet seen. Since then Captain BURNES has favored me with the sight of a duplicate in less perfect preservation, procured by himself, I believe, at *Cabúl*. I give it as a specimen of what Rupography can do under the most unfavourable conditions.

The form seems imitated from that of the Abbassite khálifs, having the legend in concentric circles written in the Cufic form of Arabic. The facsimile represents exactly by the dark parts where the surface is worn smooth; however, by carefully comparing the two specimens, the whole has been made out satisfactorily with the aid of my brother Mr. H. T. PRINSEP.

It is curious that the common title of *Shaháb ul dín*, by which MUHAMMED is generally known in Indian history, does not appear on this *Ghazneh* dirhem, which gives him the two-fold designation of *ghíás ul dín*, 'the supporter of the faith,' and *moaz ul násir le dín*, the humbled of the defender to the faith—(sc. to the Caliph of *Baghdád*). Probably the patent for the new title of *Shaháb ul dín*, the flaming sword of faith, given in honor of his brilliant and destructive expeditions into India had not yet arrived from the court of the caliph. If so the word *tisáin* (90) in the date may be read wrong.

SHAHÁB UL DÍ'N, MUHAMMAD, BIN SÁM.

Founder of the Ghôrî dynasty of *Delhí*. Reigned A. H. 588—602, (A. D. 1192—1206.)

Silver. Weight 73.4 to 92.6 grains.



Legends on the concentric circles of the Obverse.

- ١ هو الذي ارسل رسوله بالصدق
- ٢ لا اله الا الله محمد رسول الله السلطان الاعظم
- ٣ غياث الدنيا والدين ابوالفتح
- ٤ محمد بن سام

Ditto of the Reverse.

- ١ ضرب هذا الدرهم في بلدة غزنه بسنه ستة وتسعين وخمس مائة
- ٢ السكة السلطان المعظم معز الناصر لدين
- ٣ ابوالمظفر الدنيا والدين
- ٤ محمد بن سام

[The inscriptions are copied at length in plate XXI.]

Obverse.—(From the Koran.) “It is he that sendeth his messenger for righteousness”.....

There is no God but God, MUHAMMAD is the prophet of God!—The mighty sovereign *Ghids ul dunya va u'din, Abu'l fateh, MUHAMMAD BIN SA'M.*

Reverse.—This *dirhem* was struck in the city of *Ghazneh*, in the year five hundred and ninety-six.

The coin of the mighty sovereign, *Moaz ul nâser ic din, abu'l dunya va ul din MUHAMMAD BIN SA'M.*

Specimen III.

Among the coins discovered by General VENTURA in the great tope at *Manikyâla*, and described in my third volume pl. xxi. fig. 10, and page 316, were two of the Sassanian type, having Sanskrit legends on the margin of the obverse. I did not then attempt to decipher them, nor am I aware that their explanation has been since effected elsewhere.

Captain BURNES has been so fortunate as to pick up three more of the same curious coins, in his present journey, which are now in my hands with other rare antique produce of his successful research.

They have every appearance of having been extracted from some similar ancient monument; which is by no means improbable, for we may be very sure, that full half of the fruits of the late explorations of the various topes have evaded the hands of their explorers, and are scattered about the country to be hereafter picked up gradually from pilgrims or professed dealers; for a trade will soon be organized in such articles, if it be not already established. There is no harm in this, as it will tend to preserve such relics from destruction; but we must for the future be on our guard against spurious specimens, which will multiply daily.

Captain BURNES' discovery has been of the greatest service toward the deciphering of the Sanskrit legend: his coins have helped me to the general purport of the marginal writing, even if they have not wholly explained its contents. I found on collating the five legends now at my command, that three of them (vide Pl. XXI.) were short of the others by two letters, which in the most perfect of Captain BURNES' coins might be clearly read as *nita नित* ∴. Remembering an analogous omission on one of the GUPTA coins of *Canouj*, wherein some specimens had the epithet *vijayaja* and others *vijayajanita*—both of the same meaning, I concluded that the preceding anomalous letter on all the coins must be a ञ, and indeed it has no small affinity to the modern Nāgari and Bengālī j. The two preceding syllables, again, there could be no doubt about; being in all five examples देव, *deva*. Now *devaja* and *devajanita*, ‘offspring of the gods’ is the well known epithet of the ancient Persian monarchs as well as of the Sassanian race. Thus in the trilingual inscription on the *Nakshi-rustam* sculpture given

in KER PORTER's travels in *Persia*, vol. I. 548, we have in the Greek character :

TOTTO TO ΠΡΟΘΠΟΝ ΜΑΔΑΚΝΟΤ ΘΕΟΤ ΑΡΤΑΞΑΡΟΤ ΒΑCΙΑΕΝC ΒΑCΙ-
ΛΕΩΝ ΑΡΙΑΝΩΝ ΕΚΓΕΝΟΤC ΘΕΩΝ ΤΙΟΤ ΘΕΟΤ ΠΑΠΑΚΟΤ ΒΑCΙΑΕΝC
which is repeated below in two forms of Pehlevi, that for want of type
I am obliged to omit. .

The same title in Sanskrit, *devaputra shahán sháhi*, it may be remembered is applied to the king of *Persia* in the *Allahabad* pillar inscription, as revised in last November's Journal.

Again on the Sassanian coins, read by the Baron de SACY as far as they are published by KER PORTER (for I have not yet been able to obtain a copy of the Baron's work on the subject,) the Pehlevi legend runs :

مزدن به شهپور ملكان ملاك منوچتري منيزدان

Mazdezn beh Shahpura malakán malaká minochatri men yezdan.*

' Adorer of Ormuzd, excellent Shahpur, king of kings, offspring of the divine race of the gods.'

The natural deduction hence was that the rest of the Sanskrit legend would also turn out to be a translation, or an imitation of the Sassanian formula : and thus in fact it has proved to be. I here insert the facsimile of Captain BURNES' best coin, slightly retouched in the letters that were least in relief;

Indo-sassanian dirhem.

Silver. Weight 53 grains.



Legend.

Obverse. Head of Mithra (Ormuzd), Pehlevi very distinct but unread, see Pl. XXI.

Reverse. On the field, three letters of an unknown alphabet (like the Armenian ?) or perhaps numerals ?

Margin. श्रीहितिविर ऐराणच परमेश्वर श्री फा हितिगान देवजनिता.

Sri hitivira Airāna cha parameswara Sri VA'HITIGA'N devajanita.

In this legend the only actual letters at all doubtful are the *p* and *me* of *parameswara*, and the first and last letters of the name. Indeed the first letter is different in every example, as will be seen in the litho-

* In the examples given I should read this passage—*Malakán malak Airānan*, &c. but the Sassanian coins require study ere they can be properly made out.

graphed plate, as though they were all different names of the same family. Now to analyze the sentence :

Hitivira I suppose to be a corrupt writing of हृदिवीर *hridivira* 'noble in heart,' equivalent to the Pehlevi word *beh* translated by "excellent."—*Airāna cha paromeswara*, and the supreme lord of *Airān* or *Persia*, may be read (perhaps better) *Airān va Pārseswara*, the lord of *Iran* and *Fars*. For the name, we have severally *phā, cha, va, gha, or há !* followed by *hitigān* or *hitikhān* ; and lastly *devajanita*, as before explained.

I am quite at a loss to find owners for such names, and although this is the third time I have alluded to this coin, gaining little by little each time, still I fear we have much to learn before we can unravel its entire history. For the present I leave unnoticed the *Pehlevi* legend, merely placing under view in the annexed plate, corresponding passages from regular Sassanian coins, which being titles, will soon lead to a knowledge of their alphabet and meaning.

III.—*Note on the affinities of Galathea of Lamarck (Potamophila of Sowerby), a Genus of Fluvial Testacea. By W. H. BENSON, Esq. Bengal Civil Service.*

Much misapprehension appears to exist with regard to the proper location of the Fluvial bivalve genus *Galathea* of LAMARCK. That distinguished author placed the shell among his "Conques Fluviales," and considered it to be nearly allied to *Cyrena*, referring merely to the teeth as a sufficiently distinguishing character. RANG, more unaccountably, either on a cursory examination of the shell only, or of its description, and without reference to the indications of the characters of its inhabitant, which the testaceous covering exhibits, says that it would perhaps be advisable to unite it to *Cyrena*. It is true that this writer includes not only the *Conchæ* and *Nymphacæ*, but also the *Mastracæ*, *Cardiacæ*, and *Lithophagi* in one overgrown section, which he denominates "Conchacées," but this attempt at generalization does not, in any wise, absolve him from the charge of mistaking the place of the genus in question in the family, which he has thought fit to constitute. The fortuitous acquisition of a specimen of this still rather rare shell enables me to offer some observations concerning it, which may serve to illustrate its true affinities, and may not only tend to confirm LAMARCK's separation of it from *Cyrena*, but likewise shew the propriety of its location in a different family from that which he classed it.

The remaining genera of LAMARCK's *Conchæ*, whether marine or fluvial, consisting of *Cyrena* (including the more modern genus *Corbicula*) *Cyclas*, *Cyprina*, *Cytherea*, &c., possess the ligament and siphons on the longer side, or that which occupies the dorsal aspect of

- Restoration of the legend in the Yagari of the 5th cent.

PEHLEVI LEGEND OF THE OBYERSE.

From the Sassanian coins of SHAPUR. Marad. Num. Or.

Same commencement in the Nakshi Ruzam sculpture

D. HENSON

Centre



the beaks : on the other hand in the *Nymphacæ**, and especially the true *Donacidæ*, such as *Donax*, *Capsa*, &c. the ligament occupies the place of the lunule, and the siphons are exerted from the contraverse side or that towards which the beaks incline. In the fluviatile *Conchæ* the siphons are very short, and, as a necessary consequence, the siphonal scar is either very short or not apparent ; while in the *Nymphacæ* it is very conspicuous, reaching in *Capsa* and *Donax* to the centre of the shell, and giving certain evidence of an elongated siphon. In these important particulars *Galathea* agrees with the *Donacidæ* and differs from the *Conchæ*.† Its ligament occupies the lunule instead of surmounting the corselet : the siphons occupy the contraverse side of the beaks ; and lastly the elongated siphonal scar, indicative of a strong distinctive character in the animal, decides its location apart from the group which includes *Cyrena*. Its analogies also have reference to the *Donacidæ* in the peculiar truncation of the lunular side for which that family is remarkable.

An examination of the teeth of *Galathea*, will further shew its relation to the *Donacidæ* and its separation from *Cyrena*†. In *Cyrena* the three primary teeth are alike divergent, seeming like remote elided portions of rays proceeding from a common centre. In *Galathea* and *Capsa* the primary teeth in the left valve consist of two radiating prominences nearly joined at their points of departure, and exhibiting, in the included hollow space, an obtuse triangular tooth ; in the right valve there are two similar but more closely approximated primary teeth, with an interjacent hollow fitted to receive the triquetrous tooth of the opposite valve.

In *Capsa* and *Galathea* the ligament is singularly short, occupying a broad space close to the beaks, and immediately over the cardinal teeth. In *Cyrena* this important apparatus is removed towards the posterior lateral tooth.

LAMARCK following BRUGUIERES, decided on the separation of *Galathea* from *Cyrena*, from the consideration of the form and position of the teeth alone. The particulars now stated, will shew how well those characters might have been relied on even for a more distant separation.

* NOTE.—*Astarte* of SOWERBY (*Crassina* of LAMARCK) is out of its place among the *Nymphacæ*. Its hinge and siphons both refer to the *Conchæ*.

† NOTE.—In this comparison I have the typical species of *Cyrena* in view, such as *Cyrena Sumatrana*, so commonly imported into Calcutta from the Sundurbuns, for the purpose of reduction into lime, and not the aberrant species with elongate serrated lateral teeth, which are so numerous in the upper portions of the Gangetic branches, and which constitute the genus *Corbicula* of MEGERLE

Later naturalists in their attempts at generalization, have underrated the characters of the teeth, and overlooking the auxiliary characters impressed by the inhabiting molluscum on the shell, furnish a proof, if any were wanting, of the value of distinctions taken from the hinge, which will always be found to vary in nearly as great a degree as the inhabitant of the shell, to which we must ultimately look for those distinctions which will stamp the generic character with a real value. Where good opportunities may not occur of studying the animal of a bivalve shell, a careful consideration of the teeth aided by the situation and length of the ligament and siphonal scar, will seldom, if ever, fail to indicate its true place in nature.

LAMARCK imagined that the genus *Galathea* inhabited the rivers of Ceylon and India, and RANG appears to be equally ill informed on the subject of its true habitat. The specimen which Mr. G. B. SOWERBY obtained for me in London, was stated to have been procured from the river *Zaire* or *Congo*. The complete occupation of Ceylon by the British Government, without the discovery and transmission of any of these shells from the island, ought to afford a sufficient evidence of its non-occurrence in that quarter; but the recent discovery of the jackal in the Morea by French naturalists, after the opportunities so long enjoyed by our countrymen of exploring that region had failed to elicit that interesting information, forbids our placing complete reliance on such negative evidence in disproof of the existence of *Galathea* in Ceylon.

In conclusion it is proper to remark, that I have not met with SOWERBY's observations on *Potamophila*; should he have indicated the correct place of the genus, I can only plead, as an excuse for my work of supererogation, that I have been misled by the statement of a later writer, who, from the nature of his work and his opportunities, ought to have been acquainted with the latest information on the subject of the Testacea, into the belief that the knowledge of the affinities of this shell had not only not advanced, but that it had retrograded since the date of LAMARCK's publication.

Bareilly, Rohilkhund, March 1838.

IV.—Account of the Hurricane or Whirlwind of the 8th April, 1838.

By Mr. J. FLOYD, (communicated by J. H. PATTON, Esq. Magistrate of the 24-Pergunnahs.) (See Sketch in Pl. XVIII).

Agreeably to your request I beg to hand you the following account of our visit to the villages that have suffered by the storm of the 8th instant.



We proceeded to *Codalea* and on our arrival met one of the sufferers a brahmin, who had lost his family consisting of five persons, and had his leg broken. The outskirts of this village have a beautiful appearance and seem to have escaped the storm. The storm seems to have done little damage to the west* and south of *Codalea*, but from north to east it has made dreadful havoc, sweeping every thing before it. Indeed, with the exception of the government salt chokce and a few habitations adjoining it, all *Codalea* has suffered more or less; some houses constructed of brick and clay have followed the general wreck: the walls have almost all crumbled into dust: large trees have been torn up by the roots: some have been broken at the stumps, while the small and elastic ones have escaped with only the loss of leaves and branches.

A peepul tree around which a bur had entwined itself attracted my particular attention. A brahmin whose appearance denoted him to be about the age of 80 years, informed me that the tree in question was a favourite resort for the village nymphs and swains and for themselves on particular occasions; and that it afforded shelter to the weary traveller; that it had been standing time out of mind and to the knowledge of the oldest inhabitants had never lost a bough. It was the first tree that encountered the storm and the first that fell. The circle from whence the roots sprung was 35 feet in diameter, and these being of extraordinary length caused the earth to come away with the tree and to leave a chasm of about 38 feet in width by 14 in depth: most of its stouter branches were wrenched off and thrown into an adjoining tank, at such a distance as to prove the extraordinary violence with which the tree was assailed.

The paths were obstructed by fallen trees, &c. and the tanks choked with branches, in consequence of which they have become either impassable or stagnant. 55 persons have sustained bodily injury, but reports vary as to deaths; I am certain many must have lost their lives on the occasion, but there is no arriving at the actual number of those; 17 have had their limbs very severely injured and I fear cannot survive. As many of the wounded as we possibly could find were collected together, and were attended to by the native doctor who accompanied us. The females of the "*Koolin*" families were looked after in their temporary abodes, and the severest cases we advised to be removed to the hospital at Allipore, but without effect; the "*Gunga*" they said was close at hand, whither their friends would take them were they to die. To prevent our enforcing our wishes they appealed in the most pathetic terms to their relatives and friends, and intimated to us that they preferred

* Where a few houses have been left entire.



death to quitting their families, their birth-places and their homes, even for a few days.

The gomastah used his influence : money was even offered, but it was of no avail ; and we were eventually obliged to abandon the project.

As much medicine as could be conveniently spared we made over to the gomastah and instructed him how each kind should be used. We then took our leave of the houseless sufferers of *Codalea* and bent our course towards *Bykunthpore* village to the west of *Codalea*. On entering the limit of this village we were of opinion that it had not suffered in comparison with the former, and congratulated some of the inhabitants whom we met, upon it. They invited us to visit the interior of the place when they said we should be better able to judge of its condition : we had not proceeded far when we were convinced we had come to a hasty conclusion ; for about a quarter of a mile in length not a house, hut nor tree had escaped the violence of the storm, in fact every thing that opposed its progress was levelled to the ground. Persons visiting the place ignorant of the occurrence of the storm, would suppose the mischief, as far as trees are concerned, had been caused by fire ; I had almost come to the above conclusion myself on observing the stumps of trees, withered leaves and here and there posts of houses, &c. Such was the violence of the wind that cocoanut and date trees were twisted out of the ground and hurled to a distance of two or three hundred feet ; granaries out of number have been swept away, and life both of man and beast destroyed. We traversed the whole extent of the village and witnessed many shocking sights. In one place a cow was dug out after remaining beneath the ruins *four* days, and though life was not extinct, crows and vultures were devouring the body.

When so many lives of human beings and animals have been lost without adequate means for the immediate removal of the bodies, it was to be expected that the stench proceeding from the putrid carcasses would become intolerable and deter any one having a regard for his own life from entering the place. But neither the putrefaction nor the repulsive sight of mangled bodies deterred Mr. PATTON from visiting the place and giving such instructions to those under his authority as the peculiar cases of the village and of the maimed seemed immediately to require*. The humanity thus exhibited contrasts most painfully with the conduct of those villagers who had sustained no injury—they were indifferent to the misery and woe inflicted upon others, and seemed almost indifferent to their own concerns.

* Mr. PATTON has raised a subscription and distributed it among the survivors.
—ED.



I left my father at *Bykunthpore* and visited *Majaree Gaon*, *Pergunah Anarpur*, *Dum Dum*, *Anundpore*, *Baleaghatta*, the salt water lake, and adjacent villages. *Baleaghatta* towards the west does not appear to have experienced the effects of the storm in all its horrors, as only a few huts came to the ground, and but one life was lost; but Mr. G. PRINSEP'S saltworks, on the opposite side of the canal have suffered materially*.

I could not ascertain the actual loss of life and property in the canal, but by information collected from the boatmen and others it would appear that fifteen lives were lost, and about twelve boats. That there may have been more I do not deny; I only saw five wrecks, one of them in the new dock said to have been conveyed thither by the violence of the wind, the anchor of which must have weighed at least twelve maunds! But in "*Bairnala*" almost every boat was swamped. The villages of *Sambandal* and *Chowbagan*, have been laid desolate: men, women, and children have died without number as well as animals—I say without number, because there was an established hát in *Sambandal*, and on that day, I understand, it was crowded to excess by people from the neighbouring villages as well as by the residents. At *Bykunthpore* and *Codalea* the visitation has been awful indeed, but at the first mentioned places it surpasses all description; as far as the eye could reach not a house is to be seen, the grass (I am at a loss how to account for it) has been consumed, and the choppers of houses have vanished as if they were mere vapour: *Dongahs* and *Saultees*† have been carried up, and in their descent shattered into atoms. The bark of the palm-trees have been peeled off as with a knife, and their leaves broken into shreds; I am of opinion that the effect of the whirlwind was more severely felt at *Chowbagan* and *Sambandal* than at any other part; also, that it was owing to the vast expanse of water

* Some particulars of the damage sustained by these works are worthy of record. An iron salt boiler weighing more than a maund was lifted into the air and conveyed a few yards distance:—the tiles of the terraces laid in the best cement were ripped up as it were by suction. A beauliah or pleasure boat, lying on the ground for repair disappeared, and only a few fragments were found:—the chimney was thrown down and the roofs of the salt golas blown away—it appears from an observation of Prof. O'SHAUGHNESSY in this month's Asiatic Society's Proceedings, that some of the salt fell in lumps at a great distance! Large beams were lodged on the salt works from the opposite side of the canal; but the most extraordinary proof of the force exerted in a lateral direction was evinced in the projection of a slight bamboo horizontally through one of the raised, tiled walks, which pierced through the whole breadth, breaking the tiles on both sides. It has been cut off and preserved in situ as a monument of the storm.—A six-pounder could hardly have forced so light an arrow through a mass of earth five feet thick.—ED.

† Canoes and hollowed logs of wood used as fishing boats.—ED.

over which it took its course ere it met with any impediment, and having encountered one of the above villages almost immediately after crossing the water every thing before it was swept away. It pursued its course in a southerly direction, levelling trees and houses in its course, exhausting itself at *Codulga*. The villages of *Sambandal* and *Chowbagan* are well raised; the lands surrounding them, being remarkably low and bounded on the east, west and south by paddy fields, and on the north by the lake; no regular road leads to them but merely bunds, constructed for the preservation of the annual crops over which the inhabitants travel, which circumstances seem to account for the greater violence of the hurricane at these places. About three or four hundred yards to the west of *Sambandal* there are a few scattered huts slightly injured, and that chiefly in their thatch.

These villages were chiefly inhabited by fishermen, who were at the time on the lake, and never felt the effects of the storm till on their return they found their villages demolished and only a few surviving to account for the occurrence. From the position of some of the bodies I should suppose that, escaping the falling houses they had been thrown down by the whirlwind; or the wind being excessively hot, which is said to have been the case, deprived them of breath; while others encountering bamboos, &c, which were flying about as so many straws, met with their death from them. As instances of the effect of the bamboos I must state that I saw a body resting on a bamboo which must have struck instantly dead; also the body of a female not quite fifteen feet from a hut, and from which it is apparent she had been endeavouring to escape, who having encountered a bamboo that was lying at her feet must have there fallen. In a group were to be seen seven cows, one in a sleeping posture, and but for the mangled condition of the rest, I should have supposed it to be still alive, and am convinced that the animal died through fright or suffocation as there was not a tree nor house near to it.

Bákháries or split bamboos forming the choppers of houses did great execution. • The gomastah of the above villages gave me the following romantic account of the storm.

On Sunday the 27th Choitro, at about half-past 2 p. m. while the fishers were out in the lake, the hurricane came on; that at first it appeared in a westerly direction, and to the best of their judgment two dark columns that were visible whirling round and round descending to the earth, had the appearance of two huge daityas (or demons) preparing for combat; that a second before they fairly alighted they engaged in mortal strife, and agitating the waters in the lake began their work of

destruction on land, that such as were in their houses hastened out to witness this wonderful phenomenon, and ere they could return to their homes, which my informant tells me they were soon obliged to do, the sudden darkness that overspread the place, the howling of the wind and clouds of dust attending it, rendered it impossible for them to bear testimony as to which of the two gained the victory: that from the occurrence of the whirlwind, to the period it lasted, or left these parts, it did not occupy twenty minutes, and was almost immediately followed by sunshine, little or no rain, but a severe fall of hail, which probably deprived some of life. The gomastah further informed me that after the storm had subsided such as could do so, had their families conveyed to the neighbouring villages, others abandoned the place altogether and there were none to remove the dead and dying. Of the latter he remarked there were scarcely any. I might as well notice here, that it is said, that examining the bodies the following day they had the appearance of being burnt by fire; I could only find two of the wounded at *Chowbagan* who were despatched to the hospital at *Allipore*. At the village termed *Mazare Ganw* the whirlwind came on at about half-past one o'clock, at *Soorah*, *Anundpore*, *Bulleaghatta*, *Chowbagan*, and *Sambandal*, two and three o'clock; and the villages further east, *Bykunthpoor* and *Coda-lea*, four o'clock, and though not lasting more than half an hour in each, its effects have been truly distressing; it hailed in the above mentioned places, and in the two last named villages the hail was triangular. I give this latter information as I derived it, but at *Dum Dum* the stones were uncommonly large, one weighed three and a half pounds*; whether my informant was exaggerating I am not aware, but I saw a large *handi* (capable of containing seven or eight seers) containing water which he assured me was of the hailstone, the weight of which is given above; he said it might have weighed more, but was broken in its fall: the fragments he did not collect.

* We have been informed that one hailstone at *Dum Dum* would not go into a finger-glass; we picked up some at the mint nearly as large as walnuts. The large size of these stones led us to suppose that they must have been of intense cold on their issuing from the clouds, so as to continue condensing and freezing the moisture of other clouds, and the air, in their passage downwards. We collected a quantity immediately on their reaching the ground, but their temperature was then exactly 32°.—Ed.

Statement exhibiting the number of lives computed to have been lost, the names of the villages through which the hurricane passed, and other particulars.

Names of the Thanahs.	Names of the villages.	Extreme extent of storm.	Average breadth of the film of wind.	Direction of wind, straight or revolving.	Number of Pucka houses destroyed.	Number of Kutchu houses destroyed.	Number of human lives lost.	Number of Cattle ditto.	Number of wounded.	The period of its duration.
Maniektula, ..	Anundpore, ..	16 miles. $\frac{1}{4}$ mile and $\frac{1}{2}$ mile.		Revolving,	4 hours.
Ditto,	Soorah,			ditto, ....	..	..	..	..	..
Ditto,	Pagladanga, ..			ditto, ....	..	..	..	..	..
Ditto,	Mr. Prinsep's salt works, ..			ditto,	1	..	..	..	..
Pautturghotta, ..	Botchtullah, ..			ditto, ....	..	33	..	..	..
Ditto,	Chowhata, ..			ditto, ....	..	224	105	235	31
Ditto,	Butgotchee, ..			ditto, ....	..	13	..	..	..
Ditto,	Madooordooah, ..			ditto, ....	..	21	..	..	..
Ditto,	Sambandal, ..			ditto, ....	..	91	26	90	17
Ditto,	Kularabad, ..			ditto, ....	..	21	..	..	..
Ditto,	Nazeerabad, ..			ditto, ....	..	49	5	..	..
Ditto,	Anundpore, ..			ditto, ....	..	41	..	..	..
Ditto,	Jugdeepotha, ..			ditto, ....	..	53	..	..	..
Ditto,	Hossainpore, ..			ditto, ....	..	5	..	..	..
Ditto,	Autghurah, ..			ditto, ....	..	34	..	..	..
Ditto,	Ranabatooh, ..			ditto, ....	..	13	..	..	..
Ditto,	Dhaloo,			ditto, ....	..	17	3	..	3
Ditto,	Pauchpotah, ..			ditto, ....	..	58	6	18	6
Tauzeeraut, ..	Bykuntpore, ..			ditto,	1	150	33	83	51	
Ditto,	Kodaleah,			ditto,	3	157	13	17	55	
Ramnagore, ..	Sreekhundpore, ..			ditto, ....	..	79	6	30	12
Ditto,	Kaderout,			ditto, ....	..	..	..	5	5
Ditto,	Sanorpore,			ditto,	1	58	12	42	4	
Ditto,	Khord Rajpore, ..			ditto, ....	..	45	4	8	11
Ditto,	Chingreepotah, ..			ditto, ....	..	46	2	5	28
Ditto,	Hurreenobhee, ..			ditto, ..	..	31	..	..	..
					6	1239	215	533	223	

REMARKS.

The extreme length of storm, properly speaking, is 16 miles, the effects from Kaurapokur to Anundpore (4 miles) being slightly felt.

POSTSCRIPT.—There may be thought to be so much of the marvellous in the foregoing account, however authentic and worthy of confidence, that we are almost afraid to add to it the annexed extract from a Madras newspaper. It should have been authenticated by the name or names of the Europeans who witnessed it. The hail may have been drifted together after its fall, and consolidated by its being colder than ice and thus cemented by freezing the moisture precipitated on it from the atmosphere.

*Falling of a block of Ice.*

"We are afraid that, like the person who favored us with the account, we shall be accused of telling a traveller's story, but the facts too well verified to us to admit of our questioning the statement which we make. At *Nowloor*, in the neighbourhood of, and about two miles from, *Dharwar*, there fell a few days since a block of ice or a body of hailstones in one mass, which measured 19 feet 10 inches. This extraordinary mass fell on a Sunday night, and on the Wednesday succeeding, a servant, who was sent for the purpose of bringing away a pailful of the bulk, reported that the mass then still remaining was as large as three palanquins. We think such a fall as this must have astonished those who resided in the neighbourhood, who may thank their good fortunes that the mass broke not upon any devoted head. This phenomenon is to be attributed to the electrical state of the atmosphere, thunder storms have been very frequent of late in the neighbourhood of *Dharwar*, and but a short time since a tree in the fort of *Belgaum* was shattered to pieces by the electrical fluid, which fell only thirteen yards distance from the powder magazine. Much as we should have relished a portion of the frozen bulk (and we fancy in this climate the occurrence even of a hailstorm would not be unaccompanied with pleasure), we have no relish to have the missiles of the elements of such devastating dimensions as that which we now record."—*Bombay Courier*, May 15, 1838.

VI.—*Account of an ancient temple at Hissar, and of the ship model at that place. By Capt. WM. BROWN.*

Having visited *FEROZ SHAH's* pillar in the fort here, it immediately struck me that the base part of the column was one of the ancient *Baudh* monuments, corresponding with those at *Allahabad* and *Delhi*. The stone appears of the same description, but has suffered much from exposure to the climate; it has also the appearance of having been partially worked by *FEROZ's* orders, and probably some inscription was cut upon it by his workmen, but of which there is now no trace owing to the peeling off of the exterior surface. I however observed, near the upper part of the stone, some of the ancient letters, which apparently have been saved by accident, and having procured a ladder, I copied them as correctly as possible, and few and indistinct as they are, I think it is likely they will satisfy you that this is one of the *lâts* erected by *PIYADASI*. *Hissar* is on the road to *Cabul*, and has always formed one of the *serais* or resting places on that route, common with *Mehim*, *Hansi*, *Sersa*, &c.; and it is not improbable other *lâts* may



be found further onwards, particularly as it appears the Buddhist religion extended far to the northwest.

The ancient stone forming the base of FERÖZ's pillar at *Hissar* is of one piece, and is 10 feet 10 inches high : how much of it is sunk in the ground below I cannot tell, but probably there is as much of it below as above, and some of the ancient inscriptions may still be preserved on the lower parts. The greatest circumference of the stone aboveground is eight and a half feet. The rest of the pillar is of the red sandstone, common at *Agra*, and there is part of the column near the second cornice made of coarse white marble. There is a massive iron rod on the top which formerly served to support a cupola : several attempts have been made to extract this rod by natives, but they have always failed. From the base of the column to the top of this rod the height is about 45 feet ; the column is solid, and there is no way of easily getting to the top.

The pillar is situated in the centre of a square of old buildings, which at present are used as a magazine. In one of them is a Tykhana with a passage underground, which is said to extend to *Hansi*, a distance of 16 miles. On the hill near *Delhi* where the *Delhi* lät was found, of which Major PÆW sent you a description, there is a similar passage underground, which is said to extend to the *Jumna* river. I have myself explored a considerable distance of this passage, but was glad to get back owing to the lights having gone out. It does not appear to be known for what purpose these passages underground were made.

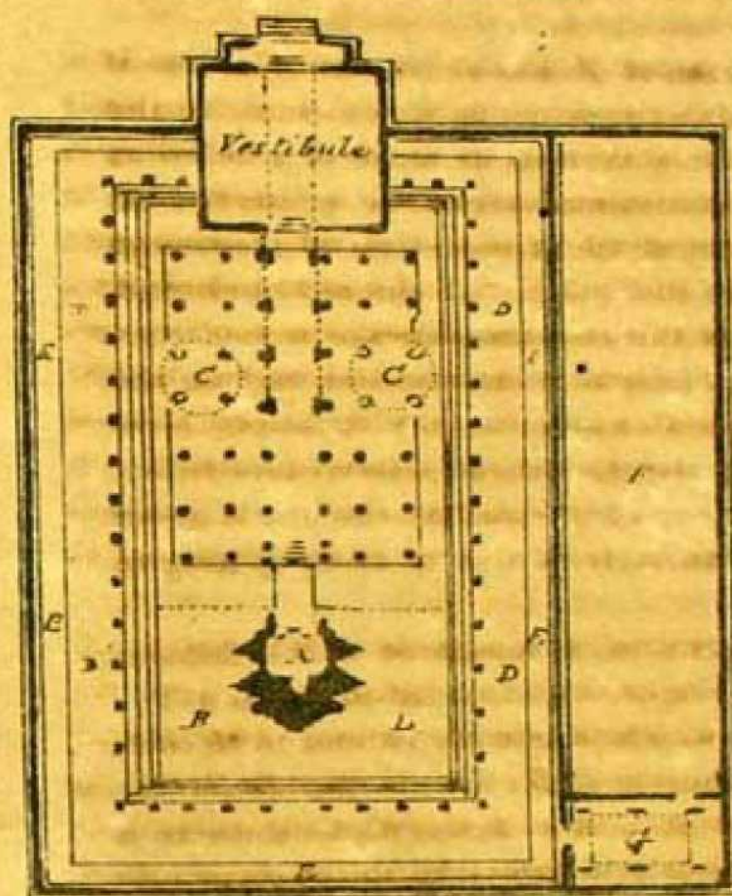
I now come to describe another building at *Hissar*, and although of FERÖZ's time, yet it claims an interest as having been a model of a ship prepared by one of the emperor's ameers who had seen one, but who not being able to describe it sufficiently to his majesty, was ordered to build one of stone and lime. There are several apartments, and a Madrisa in the interior. The building is wide and evidently got up in haste, and could not have given his majesty a very good idea of a *clipper* : some of the old Dutch men-of-war of VAN TROMP's time, might have warranted the resemblance such as it is, and of which I enclose sketches, as also of FERÖZ's pillar.

NOTE.—The faint traces of letters on the *Hansi* pillar have much more the appearance of English capitals than old Indian letters. If read however as the latter, they form no word met with on the other lät. It may therefore be doubted whether this stunted shaft was one of the series—unless indeed the greater part of it is buried below the ground.

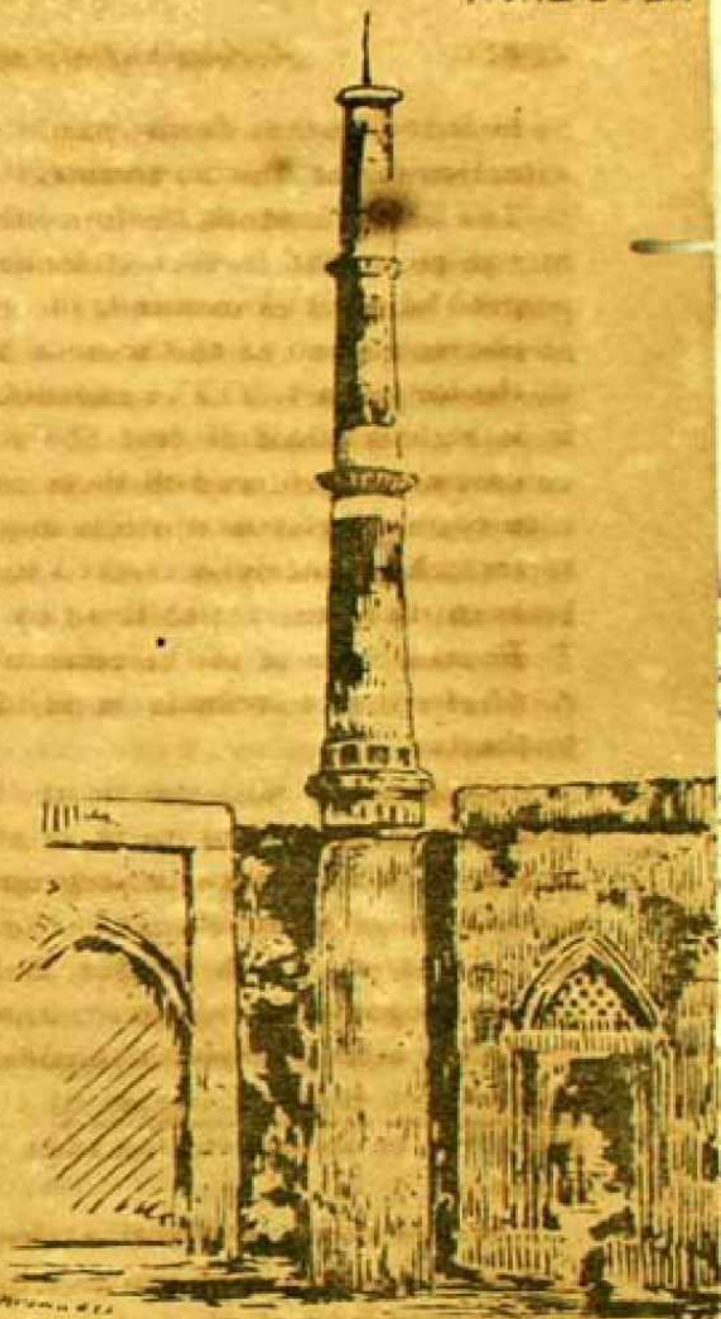
We have unfortunately mislaid the sketch of the ship-house, but if the building were really intended to give his Majesty an idea of a ship, we cannot flatter the architect on his success, nor the monarch on the felicity of his design.—ED.

Temple of RADRASIA in Cutch.

20 20 20 feet



- A. Image of Parianath
- B. Open court
- C. Two large domes
- D. Highly sculptured arcade
- E. 52 niches for images of Parianath
- F. Various compartments now filled with rubbish
- G. Court leading to B.



FEROZ SHAH'S PILLAR AT HISSAR



PARIENATH.



VII.—*An account of the Jain Temple at Badrásir; and ruins of Badránagri in the province of Cutch. By Lieut. W. POSTANS.*

The temple, of which the accompanying is a plan, is situated near the town of *Badrásir*, in this province, about 30 miles south from *Bhoj*, and about two miles from the gulf of *Cutch*, in the portion of the country called the *kántá*, (or coast.) Surrounding this building may be traced the remains of numerous habitations which, according to tradition, once belonged to the ancient town of *Badránagri*, a sea-port and flourishing place. The temple is said to have been originally erected by one *JAGGRUSÁ**, a banyan, about 800 years since, during the prosperous days of *Badránagri*, of which *JAGGRUSÁ* was a wealthy inhabitant. It is built of the sandstone peculiar to the province, in the form of an oblong square, the sides of which respectively face to the cardinal points, and may be about 30 feet high. The only entrance is to the north, under a portico of two stones, and low doorway with flight of steps. With the exception of this front, which is elaborately carved in the pagoda style of architecture, the other three sides present nothing externally, but flat stone walls; the interior however amply compensates for this want of exterior ornament. I have not had the advantage of seeing any of this description of temple elsewhere, and this is, I have reason to believe, the only one of the kind in *Cutch*, but I am informed that it is not unusual for these buildings to present the same uninteresting features externally, whilst their interiors are ornamented even more profusely than the Hindu†. The inside of the building may be considered as divided into two parts, that nearest the entrance, which may be styled the vestibule, is covered in and supported by 45 pillars with two domes; whilst the further end of the quadrangle, containing the sanctum or pagoda, in which is the depository for the figure of *PÁRASNÁTH*, is open at the top. This pagoda rises higher than the surrounding building, and is most beautifully and elaborately carved with figures, many of them large but generally on a small scale; if exceptions should be taken to the attitudes of some of these, they must still rank very high as specimens of this description of sculpture. The figures of *PÁRASNÁTH* (who is one of the twenty-four saints peculiar to this sect), and his attendants, as represented in the accompanying sketch, are of white marble, answering to the same description as I once observed in some figures from the temples at *A'bu*‡.

* More probably of the *Sáh* coin dynasty?—W. H. W.

† According to Dr. *BUCHANAN*, this temple will come under the denomination of *Bastí*. See article on the *Jains*, vol. 9th of *Asiatic Researches*.

‡ They are stated to have been brought from *Guzerat*: indeed the marble is not procurable in *Cutch*.

They are small, PÁRASNÁTH not being more than two feet high: the rest upon the same scale, highly finished and well carved. The depository is a small room, guarded by two doors and a narrow passage; the approach by a flight of steps, from a double row of columns, leading from the front entrance through the vestibule. A verandah, ascended by three steps from the floor, runs all round the interior of the building, with pillars and arches; beyond this are 52 niches for the reception of figures of PÁRASNÁTH, only one of which is at present occupied. The part of the verandah, which is opposite the pagoda and open at the top, is exquisitely carved. Such indeed may be said of the whole of this building which, although upon a small scale, is in every corner most studiously and beautifully decorated with figures, scrolls, and every description of ornament. The roof, which is gained from the upper story of the portico, presents the extraordinary appearance of 54 domes (including the two larger ones before mentioned, and which are each 50 feet in circumference) in a space of about 100 feet by 70, each of the niches in the verandah underneath being surmounted by its corresponding dome:—these niches are 4 feet wide, and 5 feet deep. The compartments contained in the wing to the east, do not appear to belong to the temple, of which they form no part, and were probably designed as offices;—at present they are inaccessible, being blocked up with stones and rubbish, whilst the damp air which has collected in them, is most stifling in its effects. The corresponding wing appears to have been destroyed by the earthquake.

Until some 15 years since, this beautiful building was allowed to remain in a state of ruin and decay, but GORJÍ (for *gúrúji*) KANTWAJEH, a wealthy Jain, with praiseworthy zeal, has caused it to be extensively repaired; the portico which had suffered from the earthquake has been re-placed, and the whole is now in good order, two peons and a priest being deputed to look after it.

At a short distance from the above are the ruins of a temple to MAHADEO, which is said to be situated outside, and close to, what was once the wall of *Badránagri*; of this latter however, no remains are to be traced, the principal attraction of this ruin consists in the picturesque appearance, presented by its various parts, to which the earthquake of 1819 has mainly contributed. It is devoid of ornament, and very small. These two buildings, with piles of loose stones, are all that now remain to trace the existence of the town of *Badránagri*. Coins are occasionally found, one of which I have in my possession, and of which the accompanying is a facsimile. Its mysterious and somewhat masonic-looking symbols lead to no result, and it is questionable if they

were ever intended to convey any meaning. These coins are of silver* and of the same size and value as the *coree*, the present current coin of the country : they are known to the natives, in common with others, as *Gadhiá paisá*, a title which only belongs to those bearing the impress of a donkey, as their name implies ; but the natives of *Cutch* bestow this title indiscriminately on all numismatic relics ; the *coree* of the former *Raos* of *Cutch* alone excepted.

I cannot avoid remarking a very curious coincidence between the situation of the ruins of *Badránagri*, and those of *Ráepur*, or old *Mándavi*, about 36 miles to the westward of the former ; they are about the same distance from the sea, and were both, according to popular tradition, seaport towns and flourishing places ; they are considered to bear the same date as to antiquity, and probably owe their abandonment and downfall to the same cause.

If the least reliance is to be placed on the traditions of the country, the present appearance of these towns would clearly indicate a gradual receding of the sea from the northern shore of the gulf of *Cutch*.

The Jain priests, better known in the province by their title of *Gorjis*, are to be found in small numbers at *Mándavi*, *Bhooj*, and *Anjúr*, which location may be attributed to these being the great trading places, and banian towns of *Cutch*. Many of the banians profess the Jain religion, and patronize the *Gorjis* as their religious instructors. Those of the *Gorjis*† (or *gúrús*), who carry the non-destruction of animal life to the greatest possible extent, are to be seen with a piece of cloth tied over the mouth, and a brush in the left hand, to drive the insects from their path ; they do not wash their clothes for the same reason, and are distinguished by the title of *Sádú*. The *Gorjis*, as well as the *Sádús*, shave the head, and wear no turbans ; they are complete ascetics, professing celibacy and continence, but if they are not defamed they can lay little claim to the latter virtue.

GORJÍ KANTWAJEH, before mentioned, is the greatest man of the class in the province, and very wealthy. I have never heard that these men can compete with the brahmins in learning or acquirements, nor is there much to be gained in the course of conversation with them, but

* They are of the Indo-Sassanian series as depicted in vol. iv. pl. xlix. figs. 13-15, and vol. vi. pl. xiv. fig. 12.

† The term *gúrú* is applied to those of the sect who are *Saniássis*, renouncers of the world and its pleasures ; they profess to abstain from pleasure in any form, and are thus distinguished from the *Brahmins*, who marry and follow the doctrines of the *vedás* : the persons above described are these *Gúrús*, (corrupted into *Gorjis*.) For full particulars of this sect, see the learned papers by *COLEBROOK* and others, in the 9th vol. of "the Asiatic Researches."

whether this proceeds from stupidity or a disinclination to impart any information respecting their faith and practices, I know not. I must not however omit to mention a trifling exception to this rule in one of the sect at *Bhooj*, *GORJÍ PUNJÁJÍ*, who to some trifling acquirements of Sanskrit, adds a knowledge of the poetry peculiar to this province, as well as that of *Marwar*, of which latter he is a native; his books are all written in what is styled the *Gwalior bhákhá**; he is also sufficiently acquainted with astrology and astronomy, to cast nativities, and foretell fates: this latter accomplishment is quite sufficient to secure him great influence with the people of *Bhooj*, whose superstition, even for natives, exceeds all bounds. Although the three towns, before mentioned, are furnished with their proportion of *Thánas*, (*sthánas*) or places of Jain worship, the structure at *Badránagri* is the only one in the province with which I am acquainted deserving the title of a temple; it is, according to all accounts, as ancient as the oldest of those at mount *A'bu*, and although not erected of such costly materials is a beautiful specimen of its style of architecture, denoting either greater prosperity at *Badránagri* than is known in the trading towns at present, or a greater degree of zeal in the Jain sectarians of its period.

NOTE.—*PUNJÁJÍ*, in accordance with a system which attains in *Cutch*, of giving lands and villages, in *enám*, to fakirs, peers, and jogies, has a village in his possession. The religious establishments of the *Khanphaties* and *Koprias* alone, possess between them not less than thirty villages. True, they apply the revenue thus derived to charitable purposes, but numerous are the instances in which it is otherwise appropriated, and the revenue consequently suffers to support the least useful, if not the most worthless, members of a community.

Anjar, 20th August, 1837.

VIII.—*Examination of the separate edicts of the Aswastama inscription at Dhauli in Cuttack. (Plate X.) By JAMES PRINSEP, Sec. &c.*

I now return from *Girná*r to the spot on the opposite side of the peninsula connected with it in so curious a manner, to render an account of the two edicts, which I postponed on my notice of the double version in March, as being of a local nature. My readers will however, in the first instance, wish to know more of the locality, and of the circumstance of the discovery of these *Dhauli* inscriptions, which, though situated, as it appears, close to the highroad at *Bhuwaneswar*, had entirely

* *Mágadhí Bhása*.—W. H. W.

escaped notice until the assiduous inquiries of Lieut. KITTOE brought them to light, and once more realized the moral adage of 'eyes and no eyes.'—The more credit is due to him, that Colonel MACKENZIE with his myrmidons had been at *Bhuvaneswar* and had ransacked the country round about:—General STUART and other of the minor class of antiquaries had been there too, and had in their usual fashion stripped and carried off all the images and fragments of old stones they could lay hands on: which would have been enough to explain the shyness of the priests in the neighbourhood at pointing out other remains, but that for those of Buddhism they would have had no repugnance at giving information, and would doubtless have been glad to turn the attention of the invader upon them to save the spoliation of their own temples.

Mr. KITTOE's recent expedition in search of coal gave him an opportunity of revisiting *Dhauḷi* and of taking sketches of the various caves in the neighbourhood which he had no time on his former visits, to do more than inspect. I here insert an extract from his Journal on the subject, and make public acknowledgment to him for the numerous lithographs in illustration of it, all of which, drawn by himself, are faithful, and not exaggerated, representations of the venerable and deserted grottos of the Buddhist priesthood.

Note by Mr. KITTOE on the Aswastama inscription at Dhauḷi near Bhuvaneswar in Orissá, &c.

"The province of *Orissá* boasts of more ancient temples, sacred spots and relics than any other in Hindustan, and though many of its more noted antiquities are well known to us, yet, there is reason to believe that some, (perhaps even more worthy of notice,) remain hidden. That which forms the subject of this paper, I had the good fortune to discover by the merest accident: a byragi priest, native of *Mirzapoor* near *Benares* having described it to me; such, however, is the aversion the Ooriyahs have, to our going near their places of worship, that I was actually decoyed away from the spot, when within a few yards of it, being assured that there was no such place, and had returned for a mile or more, when I met with a man who led me back to the spot by torch-light. I set fire to the jangal and perceived the inscription which was completely hidden by it. I subsequently returned and copied it.

"The *Aswastama* is situated on a rocky eminence forming one of a cluster of hills, three in number, on the south bank of the *Dyah* river, near to the village of *Dhauḷi*, and close to the northwest corner of the famous tank called *Konsala-gang*, said to have been excavated by rája GANGESWARA DEVA, king of *Kulinga* in the 12th century in expia-



tion of a grievous sin—I will here digress a little and relate the story told by the people of *Orissá*.

“Maha rája adhi rája GANGESWARA DEVA, having become enamoured of his daughter (by name) KOSALA, sought to cast off the odium of incest he had committed, by the following stratagem.

“Having assembled the priests and other learned men of his court, he questioned them as to whether it was lawful for a man to enjoy the fruit of his own sowing? Unaware of the real purport of the question, an affirmative answer, such as the rája wished, to suit his conscience, was given. After a time the princess being delivered of a son, the rája was taken to task for his infamy, but he, on the other hand, threw the blame upon those whose counsel he had sought, reminding them of their answer to the question by which he had deceived them.

“The brahmins, in atonement for the sin they had apparently been the cause of, ordained that a golden vase with a small perforation at the bottom should be placed, (filled with water) on the head of the offspring who was to be led by his mother round a space of ground as much as they could travel over until the whole of the water should be expended, and that a tank should afterwards be excavated comprising such space; this mandate was obeyed and the tank (when finished) called “*Kosala Gang*” after the rája GANGESWARA and his daughter KOSALA.

“Rája GANGESWARA DEVA is said to have reigned in the 12th century of the Christian era*.

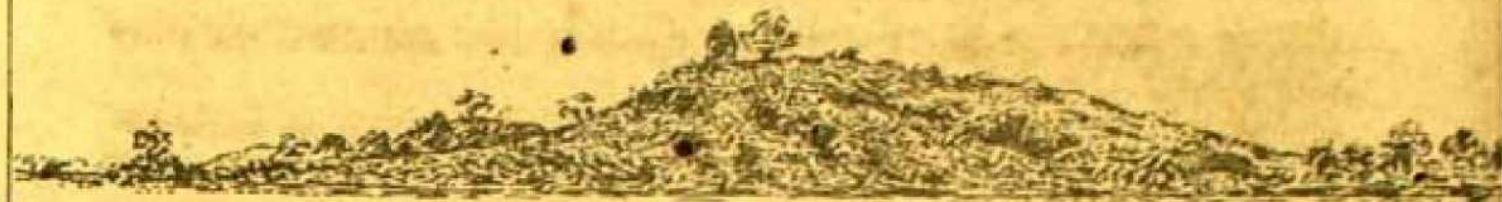
“I must now describe the *Aswastama*. The hills before alluded to, rise abruptly from the plains and occupy a space of about five furlongs by three; they have a singular appearance from their isolated position, no other hills being nearer than eight or ten miles. They are apparently volcanic, and composed of upheaved breccia with quartzose rock intermixed.

“The northernmost hill may be about 250 feet at its highest or eastern end, on which is a ruined temple dedicated to MAHÁDEVA: the other hills or rather rocks are less elevated.

“Beneath the temple on the eastern and southern declivities are several small caves (c c) and the remains of many more; also two natural caverns or clefts in the rock, one being choked up with rubbish the other (D) clear for eighty or a hundred feet, beyond which it is impossible to penetrate, the passage becoming very narrow and the stench of the myriads of bats (inhabiting it) quite suffocating†. At the mouth of

* Vide STIRLING's *Orissá* and PRINSEP's *Useful Tables*.

† I found two species of bat new to me, the one of a bright orange color, the other black with a very long tail, like a mouse but much thinner.



Distant view of Dhaulika hill from the north

THE ASWASTAMA ROCK

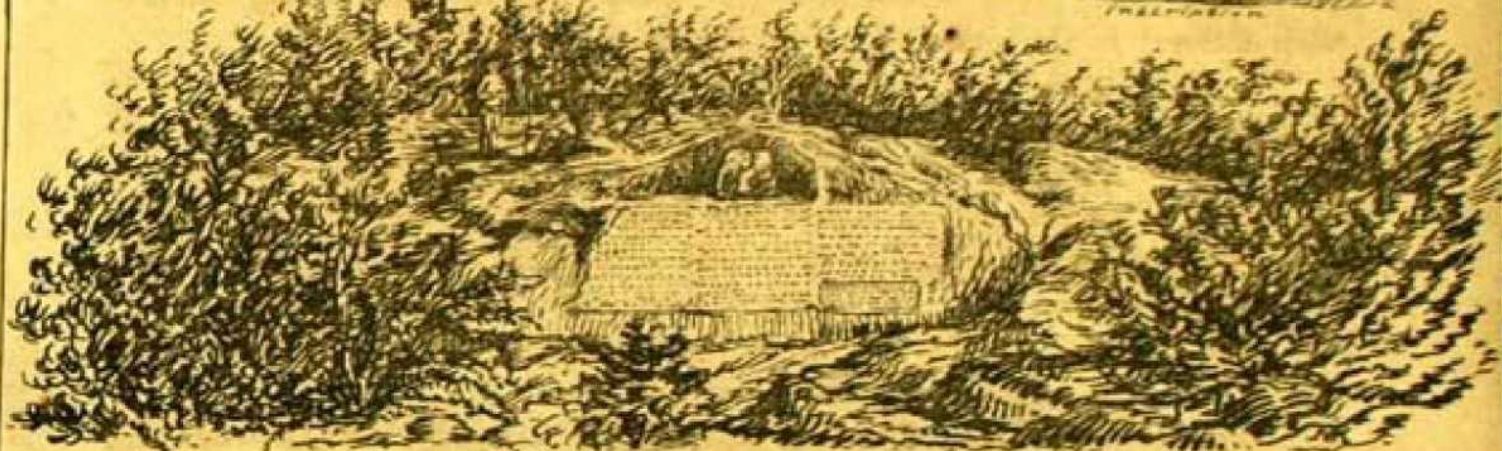


Plan of the Terrace

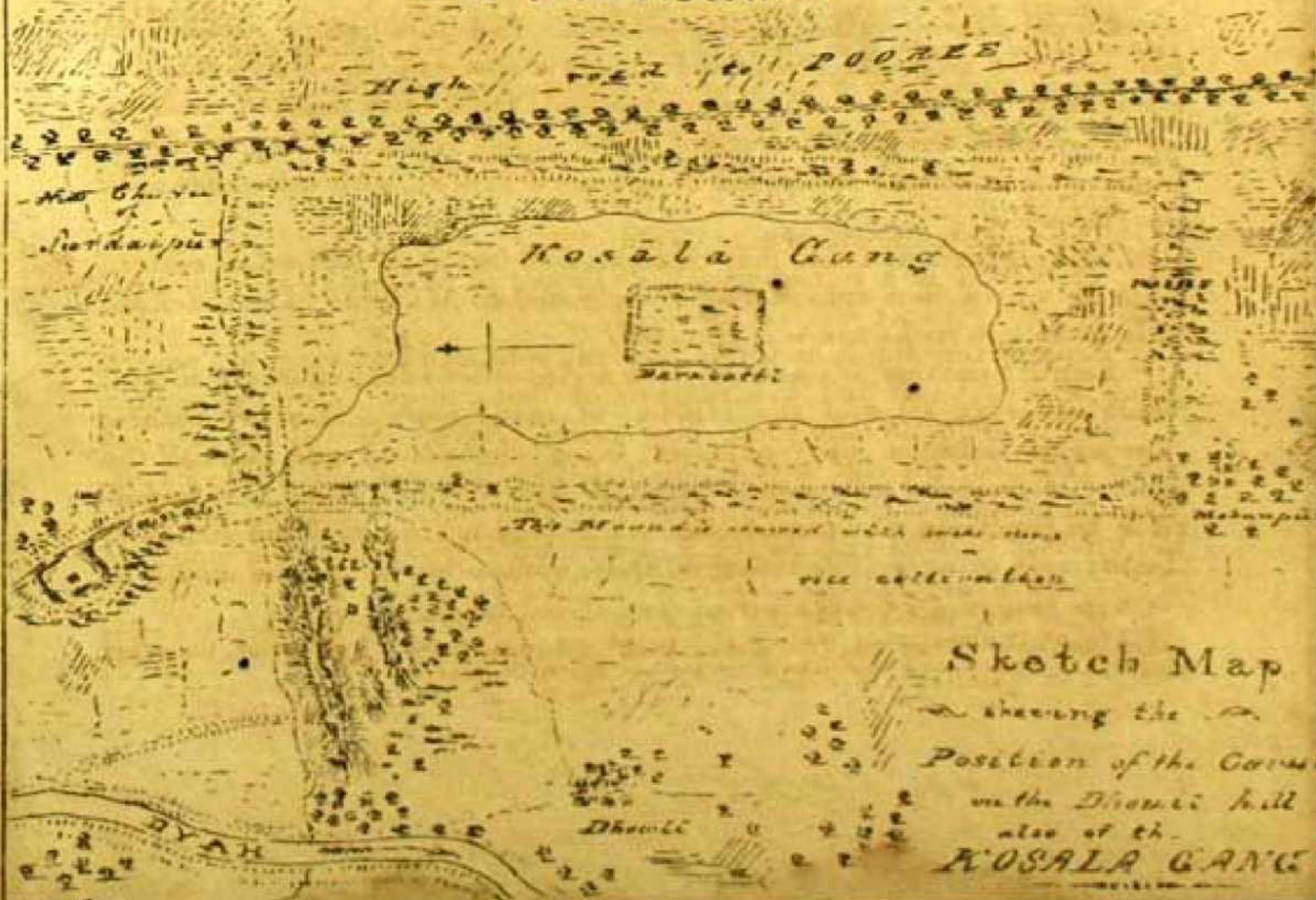
A = Aswastama

B = Foundations of old buildings

C = Caves



THE ASWASTAMA



Sketch Map
showing the
Position of the Cave
in the Dhaulika hill
also of the
KOSALA GANG

this cavern is an inscription (Fig. 2,) slightly scratched on a detached block of stone. The inscription (Fig. 1,) is roughly cut in a small cave (B) on the southern face.

"There are traces of other buildings having formerly existed on this and the adjoining hills, also in the cavities between them (M F) there is a fine temple dedicated to GANESHA and MAHADEVA at the western cave of the hill, also ruins of several others. (G H.)

"Stone has been extensively quarried here for the different temples in the vicinity, and (I should venture to add) for *Kanarak**. The *Aswastama* is situated on the northern face of the southernmost rock near its summit; the rock has been hewn and polished for a space of fifteen feet long by ten in height, and the inscription deeply cut thereon being divided into four tablets, the first of which appears to have been executed at a different period from the rest; the letters are much larger and not so well cut. The fourth tablet is encircled by a deep line, and is cut with more care than either of the others.

"Immediately above the inscription is a terrace sixteen feet by fourteen (A) on the right side of which (as you face the inscription) is the fore half of an elephant, four feet high, of superior workmanship; the whole is hewn out of the solid rock. There is a groove four inches wide by two in depth round three sides of the terrace, with a space of three feet left (a doorway?) immediately in front of the elephant; there are also two grooves, one on either side of the elephant on the floor and in the perpendicular face; these must have been intended probably to fix a wooden canopy.

"There are also many broken caves in the rocks adjoining the *Aswastama*, and the foundations of many buildings; one in particular immediately above the inscription which may have been one of the chatyas or stupas mentioned in the inscription.

The elephant does not seem to be an object of worship, though I was informed that one day in every year is appointed, when the brahmins of the temples in the vicinity attend, and throw water on it, and besmear it with red lead in honor of GANESHA.

"There are five caves in a row on the high rock south of the elephant (C C C) called by some "*Panch-pandav*" and by others "*Panch-gosain*:" beside these caves (where there are traces of many others) there are numerous small holes like mortars, cut in the rock; these were probably used to compound the drugs and medicines by the medical devotees mentioned in the inscriptions. Like cavities occur at the caves of *Khand-giri*; some larger than the rest have been used as reservoirs.

* The black pagoda.

“The canal is now choked up ; there are the remains of several small bridges near it.

“ *Bhuvaneswar* is the site of a very extensive city the name of which is lost : the present village is called after the great temple, ‘ *Ling raj, Bhuvaneswara.*’ ”

Note. Persons wishing to visit the *Aswastama* should proceed as far as *Sur-daipoor*, *Nyabazar* at the N. E. corner of the *Kosala-gang* on the *Porree* road, and then proceed directly along the edge of the tank : vide map. There is also a direct path from *Bhuwaneswar* to *Dhauili* hill.

First separate tablet at Dhauli.

[illegible]

[illegible]

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First separate Tablet at Dhault.

Devánampiyasa vachanena Tosaliyam mahámáta nagala vihála-
 vataviyam. Am kichhi (*dekhám*) i hannam, tam ichhámi kálinam :
 enam pativedaye ham : duválatecha álabhe ham, esa cha me mokhy-
 amate duvále : *etasi athasi* am tuphe *hi* anusathi tuphe *hi* ; bahúsu
 pánasahasesu áyata jana me gachha cha sumunisánam. Save sumunise
 paja mamáti : atha pajáye ichhámi hakam ; savena hitasukhena hida
lokika páralokikáya yujevúti : he me ... hasa supa ? ichámi duka no
 cha pápunítha áva - - - - a - nedhava ? eka pulise manáti ; etam sepi
 desam no sava dekhatelhi tuphe éte ; savi hitápiniti—yam eka pulise ...
 bandhanam vá palikilesam vá papunnáti, tota hota akasmá tena bandha-
 ná táka ; ane cha ... *ba* hu janodasiye dukhíyati : tata ichhitaviye
 tuphe *hi* ; níti majham paṭipádayemáti. Imehi cha vagahi no paṭipajati ;
 —isáya, asulopena, niṭhuliyena, túlanáya, anávútiyá, álasiyena, kálam-
 mathena,—se ichhitaviye kiti ete bahu ... vevu mamáti : *ete su* cha savesu
 múlá anasulope atulaná cha, nitichham ekilante siyá ! *ete ugaṭi* sam-
 chalita vadhentu, va hitapiye etaviye, vá hevam meva eda ...tuphákatena
 vataviye ; anam na dakhita, hevancha hevam ata devánampiyasa anusa-
 thi, se mahá tasa sampatipáda *yeham* : mahe asáye asampatipaticha
sampatipádayámi, nahi etanananthi sagasa áládhino lájaladha duáhalehi :
 isánam *meva* mannata manam ; atilekesa paṭipajamáne cha, tam santam
 áládhayisatháti tam apananiyam ehatha !

Iyam cha lipi tisa nakhatena (*sota*) viyá antámási cha *ti s e* na na
 khat *ená* pi ekenápi sotaviyá : hevam cha kálanta tuphe, sanghattha
sampatipádayitave : etáya atháyá iyam lipi likhitá hida ena nagala
 viyopálaká sasatam samayam yujavú : *nagala janasa* akasmá pali bodha
 va akasmá pali *ká ma* deva no si *váya* yáti.

Etáye cha atháyé hakam *dhamma* mate panchasu panchasu vasesu
 nikhamayisami : e akha khase a se khi nálabhe bisati : etama-
 ṭham janita thá kalati atha mama anusathíti. Ujenyá sepicha
 kumále etáyevam aṭhaye níkhámayisati hidisammeva vatam, no cha
 atikámayisati tinivasáni he me vatam ; khasalate pi adá a ... te mahá-
 mátá nikhamísanti anusayánam, tadá ahápayita atanekamma etapí jana
 satam tampi tam kho kalanti athá lájine anusathí.

Last separate Tablet at Dhault.

Devánampiyasa vachanena Tosaliyam kumále mahámátá cha vataviya !
 an kichhi dakhámi ha (*nam tam ichhámi kálinam, enam pativedayeham*)
 duválatacha álabheham ; esa cha me mokhyamata duvála. Etasi athasi
 an tuphe (*hi* anusathi tuphe *hi* ; bahúsu pánasahasesu áyata jana me
 gachha cha sumunisánam ! save sumunise paja mama) atha pajáya
 ichhámi hakam iti, savena hita sukhena hidalokika pálalokikaye yuje-
 vúti he m

...siyá : antánam aviditánam káchha vasulá*.. (6) .. mama ichhámí antasu i pánevute ; iti. . Devánampiyē mataramaviye ... have vuti. Asvasevu cha sukhameva lahevu mama anodukhahevam (sa) va nikhamáchine : Devánampiya ahá : kīti echa kiye : khamitave mama nimitam cha dhammam cha hevū, hidaloka palalokam cha áládhayevu. Etasi athasi hakam•anusásámi tuphe anu (sathike) etakena hakam anusasita cha (hi) dancha vedita áhayámi ; paññácha mama ajalásá : hevam kaṭukam me chalitaviyam ! asve chi táni ena papune vu iti.

Athá piye tathá devánampiyē adhákā : athá cha atá hevam devánampiyē (ná) nusampati adhákā : athá cha paja hevam máne devánampiyasa ; se hakam anusásite va devánampiyaka dāse vutike hosámi. Etáye atháye *Dubuláhi* tuphe cha swasanáye hitasukhaye cha (e) sa hidalokika páralokikáye : hevancha *Kalantam* tuphe swagam áládhayitave, tate mama cha ananichham eatha ! Etáye atháye iyam lipi likhitá : hida ena mahámátáswasatam (ná) ma yajisati. A sásanáye dhamma chalanáye cha tastú atanam : iyamcha lipi anabhátun másam tisena nakhatena sotaviyá. Kámamcha khaṇakhanasi antalápi tisena ekena sotaviyá ; hevam kalanti tuphe, sanghatha sampatipádayitave.

Translation of the first separate Tablet at Dhauli.

By command of DEVÁNAMPIYA (the beloved of the gods) ! In (the city of) *Tosali*, the public officers in charge of the town are to be enjoined (as follows :)—

“Whomsoever I ascertain to be a murderer, him do I desire to be imprisoned. This I publicly proclaim, and I will carry it into effect however difficult : for this my supreme will is irresistible !—On this account the present tope (stupa) (is denominated) the tope of commandment.

“From amongst many thousand souls, oh ye my chosen people ! repair ye (hither) to the holy men. Every righteous man is my (true)

Notes to the first tablet.

Tosaliyam, equivalent to the Sanskrit loc. *तेष्वर्था* from *तेष्वर्था*. *Nagala vihálaka vataviya*, *वक्तव्यं*, it shall be said to the inhabitants ; &c. There should be a long á to the two last words, *viháráká vataviyá*, perhaps omitted in copying.

An kachhi de this mutilated sentence is filled up from the duplicate in the next edict.

Kálinam, a prisoner from *kárá*. (quere *káritam*).

Duválate cha álabheham, see the observations—it is rendered here by the Sanskrit *दुर्वारतश्चारभेदं* ‘and in spite of difficulties (irresistibilities) I execute :’ which last word like the Sanskrit has the double sense of doing and killing.

Mokhyamale, in Sanskrit *एष च मे मोक्षमते* *दुवरः* ‘and this my primary will is irresistible !’—This will correct an interpretation of the same word in the pillar

subject, and for my subjects I desire this only, that they may be possessed of every benefit and happiness as to things of this world and of the world beyond !..... and furthermore I desire ye do not purify the wicked until.....

“ In this country and not any where else is to be seen such a stupa (?) in which is provided proper rules of moral conduct. When one man relieves (his fellow-creature) from the bondage and misery (of sin), it necessarily follows that he himself is released from bondage ; but again despairing at the number of human beings in the same state (whom he is unable to relieve) he is much troubled. Thence is this *stupa* so desirable (as an asylum ?) ; that in the midst of virtuous regulations we may pursue our obedient course !

And through these classes (of deeds) are people rendered disobedient

edict No. 4 (page 397, vol. VI.) *echa iyam atana pachupagamane se me mokhyamate*—in Sanskrit यद्य इयं आत्मनः पश्चादुपगमनः सः मे मौख्यमतः ‘and whoso from his soul is a follower after this edict, he is by me (esteemed) the most desirable.’

Am for *yaf* or *yam* (see remarks on *Dhauuli* dialect page 277) ; *e* for *ye*, *ena* for *yena* are also frequent. In this place *am* seems put for *ayam* ?

Tuphe, Sanskrit, स्तूपः Pāli, *thupo* ; Anglice, ‘a tope,’ mound or Buddhist shrine.

A’yata jana, either—आयत् ‘coming’ contrasted with, *gachha cha* and going, गच्छत् or आयतजनः the elect. See *janasi ayata*, vol. vi. p. 585. There is a tempting analogy between *gachha*, tree, in this passage and *aswatha* in the *Delhi* pillar, but it may be illusory.

Athapajaye, more distinct in the next tablet—the lithograph here has *adha*, but on re-examination Mr. KITTOE found it indistinctly H⊙. perhaps *athi*, is.

Yujeruti, यज्ज for युजो भवति ?—or योजेयुः may unite ; see tablet 2.

Duka no cha papunitha ava ;—दुःखं (for (दुष्करिणं) नच प्रपूनीत यावत् the sense is here cut off by an erasure, nor is it at all satisfactory.

Etam sepi desam no sava dekhatehi tuphe ese. This difficult passage I have rendered at a hazard by एतं देशं नापि सर्वं सच्चि स्तूपः दृश्यते—no sava dakhine hi ‘not even in the south’ is there such a tope,—would be better.

Etemsi vihitapi niti—एतस्मिन् विहितापिनतिः ‘in this (tope) is appointed a system of conduct.’

Yam ekapulise this mutilated passage I dubiously fill up thus :—यदेक पुरुषः बन्धनं वा परिक्षेपं वा प्राप्नुनाति ततोभवति अकस्मात् तेन बन्धनात्थतं अन्यथ वज्जजनोदास्यो दुःखीयति The pandit would render *prāpunāti* by *prāpnoti*.

Niti majham ; the first letter doubtful, may be *kirtti madhyam*, or *kriti madhyam*, ‘in the midst of the wise,’ or it may be given as a name to a particular stupa.

Imehi cha vagehi, Sans. एभिर्वर्गैः by these species (of offence).

Isāya, ईषया by envy—or it may be ईशाय ‘to god’ in connection with the next word, for in the pillar edict (vol. vi. page 584), envy is written *isyā* : ॐ.

Asulopena, असुलोपेन, by cutting off, or sacrificing life.

—viz. by enviousness, by the practice of destroying life, by tyranny, by cruelty, by idleness, by laziness, by waste of time. That morality is to be desired which is based on my ordinances (?), and in all these the roots (or leading principles) are,—the non-destruction of life, and the non-infliction of cruelty. May the desire of such moral guidance endure unto the end of time ! and may these (principles) continuing to rise (in estimation) ever flourish, and inasmuch as this benefit and love should be ever had in remembrance, my desire is that in this very manner, these (ordinances) shall be pronounced aloud by the person appointed to the stupa ; and adverting to nothing else but precisely according to the commandment of DEVĀNAMPIYA, let him (further) declare and explain them.

“ Much longing after the things of (this life) is a disobedience, I again declare : not less so is the laborious ambition of dominion by a prince, (who would be) a propitiator of heaven. Confess and believe in God who is the worthy object of obedience !—for equal to this (belief), I declare unto you, ye shall not find such a means of propitiating heaven. Oh strive ye to obtain this inestimable treasure !

Niṣhuliyena, नैशुल्येण by harsh severity.

Tālanāya, either दूरणया, by cruelty, or दूशनया, by expulsion.

Anāvṛtiya, अनावृत्त्या, by non-employment.

A'lasīyena, आलस्येन, by idleness.

Kālamathena, कालमन्थेन, by churning time, (or wasting it :) a common expression in Sanskrit कथं कालमग्नासि ' why do you churn time, in idleness ?'

Se ichhitaviye kiti etc (read *ese*) perhaps सः इच्छितव्यः or (एष्टव्यः) ' this is such a wise man as is to be desired :—कीर्त्ति' and नीति are feminine, and are so used on the pillars, *esā kiti*, &c. (p. 588.) But false concords are but too common throughout.

Ugata sanchalita vadhetu, उद्गत संचलित वद्वयंतु.

Hita piye etaviye (?) hitapriya etavya: profit and love are proper to be sought.

Tuphākatena vataviye :—सुपाकतेन—by the person appointed to the shrine ; according to the pandit, but rather far-fetched.

Mahe asūye asampatipati—महाशयः great possessions—or avariciousness.

Nahi etannanāthi, नहि एतदन्यदस्ति, there is not verily such another.

Sagasa ālādhino lājāladha duāhalehi—सर्गस्य आराधिनो राज्यव्यदुराहरोहि, ' so the difficult obtaining of dominion, is (an unworthy act) of one propitiating heaven.'

Isānameva manyata mānam ; ईशानमेव मन्यत मानं worship ye the lord who is alone worthy of worship.

Atileke sampatipajamānecha ye, tam santam ālādhayisatha : this requires but little alteration अतिरेकः संप्रतिपद्यमानस्य यः तंसंत आराधयिष्यथ, who is most worthy of obedience, him the eternal ye shall propitiate by prayer.

Tamcha apananiyam eatha, तंच अपननीयं एतत् as translated.

“ And this edict is to be read at (the time of) the lunar mansion Tisa, at the end of the month of *Bhātun* : it is to be made heard (even if) by a single (listener). And thus (has been founded) the *Kālanta stupa* for the spiritual instruction of the congregation. For this reason is this edict here inscribed, whereby the inhabitants of the town may be guided in their devotions for ages to come—and as of the people insensibly the divine knowledge and insensibly the (good works) increase, so the god of passion no longer yieldeth them gratification. (?)

“ For this reason also I shall cause to be, every five years, a general *nikhama*, (or act of humiliation ?) (on which occasions) the slaughter (of no animal of any kind ?) shall take place. Having learnt this object, it shall be so carried into effect according to my commandment.

“ And the young prince of *Ujein*, for the same purpose shall cause a religious observance of the self-same custom : and he shall not allow any transgression of this custom for the space of three years—so that when functionaries have admitted to initiation the penitent, then should any not leave off his (evil) practices—if even there be hundreds (in the same predicament) it shall be certainly done unto him according to the commandment of the *rāja*.

Tisa nakhatena, तिथि नक्षत्रेण. See observations on this lunar mansion (*Pushya*) in the notes to the pillar edict, vol. vi. p. 575.

Antamāsi cha—in the last month of the year, *Chaitra* or *Phalguna*.

Kālantam tuphe, either the name of the tope, or *kālāntam* unto the end of time, which translation I have given in the other edict.

Hidaena, इह येन here ; by which, or हृदयेन ‘with the heart.’

— *gala vitopā... laka* ; I fill up *nagaraviyopārakā*, the merchants of the town ; perhaps *viḥārakā*, the inhabitants as above.

Sasatam samayam, शाश्वतं समयं —for a very long period.

Ka... deva no si... yāti—filled up with hesitation, *kāma deva no sīvāya yāti*, ‘the god of love does not go for pleasure.’

Nikhamayisāmi,—निक्षमयिष्यामि, I will cause क्षम kshama, pardon, devotion, a general forgiveness?—see page 242, and observations below.

Ujenyā se picha kumāle, उज्जयिन्यः सापिच कुमारः

Hedisam meva vatam, ईदृशं मैव व्रतं similar conduct as enjoined by me.

Atikamayisati, अतिक्रमयिष्यति shall not allow deviation or transgression.

Tini vasāni he me vatam—for three years, my established custom.

Khasalatehi,—probably क्षषरतः ‘intent upon killing,’ or still using meat food in sacrifice, — or a man of low caste : the word is doubtful.

Adā-tadā, यदा तदा when, then.

Nikhamisanti anusayānam, ‘shall absolve (him) as penitent.’ See above.

Ahāpayitā atane kamma, not leaving off his own (evil) deeds.

Etam pi jana satam, tam tathā kalantu, ‘to this man, or a hundred such let them do’—or *etam janam sasatam*, ‘to such a man invariably.’

Rājine anusathī, राज्ञः अनुशालि, the a is re-placed by a small dash on the stone.

Translation of the last separate edict at Dhauli.

By command of DEVĀNAMPĪYA ! It shall be signified to the prince and the great officers in the city of Tosale.

Whomsoever I ascertain to be and this my supreme will is irresistible ! On this account is the present *stupa* and for my loving subjects do I ardently desire to this effect :—that they may be filled with every species of blessing and happiness both as to the things of this world and the world beyond !

..... may be. Of countless things as yet unknown I ardently desire they may partake ! Thus hath said DEVĀNAMPĪYA may repose, ... and take pleasure, while the removal of affliction is in like manner the chief consequence of true devotion. (?) DEVĀNAMPĪYA hath also said ;—“ fame (consisteth in) this act, to meditate with devotion on my motives, and on my deeds (of virtue) : and to pray for blessings in this world and the world to come. For this purpose do I appoint another (?) *stupa*—by the which I cause to be respected that which is (above) directed and proclaimed. And my promise is im-

Notes to the second Tablet.

Kumāle, कुमारः—with this exception the opening passage seems to correspond word for word with that of the first tablet. I have filled in the erasures in italics in the romanized version, but the translation gives only the portions that are preserved.

Kichhī dakhāmi—the omission of the *e* favors the reading किञ्चिदाख्यामि. (See observations.)

Yujevūti, from यज unite, Sans. योग्य or युक्तोभव ‘be thou united with’ ? *yute* is also used in other places. The verb *vū* and *vūti* (quasi *vu-iti*) so frequently occurring in the pillar and *Dhauḷi* texts seem rather to represent the imperative *bhava* (Pāli, *ho*) than *bhaves* or *bhavatu* ; or it may be the termination of the 3rd person plural of the potential mood एयुः *eyu* :—योजेयुः may unite, or यजेयुः may worship ; *yajeyum* in Pāli.

Antānam aviditānam, the pandit would read *atānam* or *anantānam*, but the passage is too mutilated to be completed.

Asvāse vu—आश्वासेयुः may breathe freely, enjoy the repose of a hermit’s life ?

Sūkhamava lahevū—सुखमेव लभेयुः may take pleasure thus.

Nikhamachane, निःक्षमाचनः replete with *kshama*, devotion. *Khamitave*, or *khamifun*, to devoutly uphold, see observations.

A’hayāmi, either *ahbayāmi* आह्वयामि, I call, proclaim, or अर्हयामि I cause to be respected.

Paṭiṇa ajalasā, प्रतिज्ञा अजरसा promise—undecaying. This is a solitary instance of the letter ḥ being used.

Kaṭukam, कटुकं, bitter, disagreeable. See *Girṇār* edicts.

Papāne, प्रपुण्ड्र ? exceeding virtuous.

perishable ! However bitter (or hard) it shall be carried into effect by me, and consolation (will accrue to him who obeys ?)—by which is exceeding virtue—so be it.

Like as love itself, so is DEVÁNAMPĪYA worthy of respect ! and as the soul itself so is the unrelaxing guidance of DEVÁNAMPĪYA worthy of respect ! and according (to the conduct of) the subject, so is the compassion of DEVÁNAMPĪYA : wherefore I myself, to accomplish his commands, will become the slave and hireling of DEVÁNAMPĪYA. For this reason the *Dubalābi tupha* (is instituted) for undisturbed meditation, and for (securing every) blessing and happiness as to the concerns of this world and the world beyond ! And thus to the end of time (is this) *tupha* for the propitiation of heaven.

Accordingly strive ye to accomplish each and all of my desires ! For this object is this edict here inscribed, whereby (the spot) shall be caused by me to receive the name of *mahāmātāśwasatam*, or (place of meditation of the officers) ; let it so remain for a perpetual endowment by me, and for the furtherance of religion.

And this edict shall be read aloud in the course of the month of *Bhātun* (Bhādun ?) (when the moon is) in the *nakhatra* (or lunar mansion) of *Tisa* :—and, as most desirable, also it shall be repeatedly

Athā—tathā, यथा तथा only distinguishable from अथ and अथ by the final *ā*.

Adhāka—if for अर्हक 'worthy of respect :—if the *ā* be read *i*, then it may be *adhika*, 'exceeding'—yea more. *Atha paja hevam maye*—a doubtful reading—*māne* is preferable, or *hevam-aye*—as adopted in the translation. The word looks more like *meye* in the original.

Dāse vutike hosāmi, दासवृत्तिको भविष्यामि.

Dubalāhi, from दुर्बल feeble, weak—hodie *dūbla*.

Kālantam, perhaps कालान्तं—to the end of time. See the first tablet.

A'nanichham eatha, अन्यमिच्छं (or नित्यं continually) एतत् from ईदु endeavour, written *esatha*, in the first tablet, from इष desire—एषत् desire ye. ?

Hida ena either इद येन or हृदयेन, see the other tablet.

Śwasatam (nāma) yajisati सितं नामयोजयिष्यति—the letter *nā* has been inserted conjecturally as not affecting the sense—the same verb is found in the analogous passage in the twentieth line of the first tablet—*Sāsatham samayam yajevā* (ti.)

Tastu atonam—perhaps *eta* (for *etat*) or *tad astu atānam* for *atmanām*—as translated.

Anabhātun māsam—this I can only understand as *anubhādun māsam*, in the course of the month of *Bhādun*—Sans. *Bhādra*.

Tisena nakhatena,—see the parallel passage in the other edict, which the better preservation of this enables us to complete.

Khaṇakhaṇasi—Sans. क्षणे क्षणे repeatedly or at stated intervals, derived from the winking of the eyes.



read aloud in the last month of the year, in the lunar mansion *Tisa*, even if one person be present; thus to the end of time to afford instruction to the congregation, of the *tupha*.

Antalāpi tisenā—अन्तरापि—in the course of the month. The other edict has *antamāsi*—at the end of the same month, which is most likely the right reading.

Sanghatha sampatipādayitave—corrected from *cha ghatha sampatipādayisave*, on the authority of the nineteenth line of the first edict. If *ghatha* be preferred it must be rendered by ग्रन्थ *grantha*, sacred volume?

Observations.

I have stated that the first and last tablets at *Dhauḷī*, were totally distinct from the general series of *Asoka's* religious edicts. This is manifest as well from the mode of the address, as from the parties addressed. The expression *Devānampiyasa vachanena*, 'by command of *DEVĀNAMPĪYA*'—seems to denote that the proclamation was issued by some functionary under the royal authority. The same peculiar opening occurs in the short supplementary inscription on the *Allahabad* pillar, but while that was addressed to the ministry in general (*Savata mahāmātā vataviyā*—the ministers every where are to receive notice), both of the present are confined to the immediate residents in the district,—one being worded, *Tosaliyam mahāmātā nagala vihālaka vataviyam*—'the ministers or officers enjoying the city in (the province of) *Tosali*'—or it may be 'attached to the city *Vihāra*—are to be informed;'—the other—*Tosaliyam kumāle mahāmātā cha vataviyam*. In both these cases the gerund is in the neuter, but probably the inflections have been omitted in the copying.

It will be remarked that the simple word *mahāmātā*, (Sans. *mahāmātrāḥ*) is used, not *dhammamahāmātā**, the great officers or ministers of religion:—the order therefore may be regarded as an injunction from the court to the head civil authorities of the place. Moreover in the first tablet, these officers alone are mentioned, whereas in the second tablet the word *Kumāle*, (कुमारः) young prince, is joined with them, as though he had been in the former instance too young to be regarded, and his chief officers had been *nagala vihālaka*, as we should say, 'in charge of the town.'

ARRIAN in his *Indicæ* gives exactly this account of the routine of civil administration of the country in *ALEXANDER's* time;—and one

* The sense I proposed for *mahāmātā* on first reading the pillar text, and repeated in November last, of 'sacred doctrine' has been necessarily set aside by the clear enunciation of the *Girnar* text.

passage in particular apphes with such curious fidelity to the duties of the *pativedakas* or inquisitors whose report was to be made to the prince, or where there was none to the 'magistrates, as described in the sixth edict of *Girṇār* and *Dhauḷi* (page 268,) that I cannot forbear to extract it: the Greek word employed to designate what he calls the sixth class of the Indian community, ἐπίσκοποι is nearly a translation of प्रतिवेदक instructors or inspectors :—

“Εκτοι δέ εἰσιν Ἰνδοῖσιν, οἱ ἐπίσκοποι καλεόμενοι. Οἱτοὶ ἐφορῶσι τὰ γινόμενα κατὰ τε τὴν χώραν, καὶ κατὰ τὰς πόλεις· καὶ ταῦτα ἀναγγέλλουσι τῷ βασιλεῖ, ἵνα περ βασιλεύονται Ἰνδοί· ἢ τοῖς τέλεσιν, ἵνα περ αὐτόνομοι εἰσὶ· τοῦτο οὐ θέμις ψεύδος ἀγγεῖλαι οὐδέν· οὐδέ τις Ἰνδῶν αἰτίην ἔσχε ψεύσασθαι.—*Indicæ*, cap. XII.

‘The sixth class among the Indians are those called *Episcopi* (inspectors or inquisitors). These take cognizance of whatever happens both in the country and in the town, and report the same to the king in those places where the Indians are under regal rule; or to the *magistrates*, where they govern themselves*. And to these (functionaries) it is not lawful to report any thing false, nor indeed have any of the Indians been ever taxed with the vice of falsehood.’

The last passage, as containing an impartial testimony to the character for honesty once borne by the natives of this country, deserves to be translated into the vernacular of every province, and hung up over the door of every judicial court in the present degenerate age!

To proceed in our analysis :—The province governed by this feudal prince and his ministers has long been erased from the catalogue of Indian states. *Tosaliyam* in the pillar-dialect of the Páli corresponds with the Sanskrit locative case, तेषां, of तेषां, *Tosali*, a name only to be found written with the same orthography in *PROLEMY*'s tables, as the city of *Tosale*. The Indian name of the same place, as identified by *WILFORD*, is *Tosala-Cosalaka* according to the *Brahmanda Purána*, and simply *Cosalaka* or *Cosala* in the *Varásanhita*. This is not the first occasion in which the Greek have proved better guides than the Sanskrit authorities, in regard to the actual geographical names preserved on our ancient buddhist monuments; though in describing their situation on the map great allowances must be occasionally made for the former; who, if, as we have now some reason to suppose, they derived their information from buddhist missionaries settled among them, would necessarily improve nothing of the very vague notion of relative positions and distances possessed by their informants. *Tosale metropolis†* is thus placed by *PROLEMY* on the other side of the *Ganges*, somewhere near the mountains inhabited by the *nangologe* (most probably the *nágas*

* Such a government was that of the *Litsavis* in *Pryága* or *Vishakh*. See *CSOMA*'s analysis of the *Dulva*. Such also in a great sense was the capital of *Surashtra*.

† See *PROLEMY*'s *Geog.* 11th plate, India extra Gangem.

or *nāgaloka* of the eastern mountains). The *Pūrānas* merely place *Cosala* 'behind the Vindhya mountains*'; but we are now able from the best of all possible authorities to restore its correct position; and it would seem even that part of the Sanskrit appellation has been preserved to this day in the name of the large artificial tank, around which Mr. KITTOE tells us the remains of an ancient city are still visible; for the tank is called the *Kounsā gung*, or *Kosala ganga*; though a very different account of the origin of its name is given by the present inhabitants. *Tusha* and *kushala*, it should be remarked, both signify pleasure, happiness, in Sanskrit.

The burthen of the proclamation seems to be contained in the sentence immediately following, and of this by our usual good fortune we have two copies to collate together; for, as far as the mutilated condition of the last tablet permits us to compare them, the two seem literatim the same:

- 1st. Am kichhi dakhāmi hannam, tam ichhāmi kālinam .. na patipādayeham;
 2nd. Am kichhi dakhāmi ha
 1st. duvālatecha ālabheham: esa cha me mokhyamate duvā.
 2nd. duvālate cha ālabheham: esa cha me mokhya mate duvā.
 1st. .. si si an tuphe, &c.
 2nd. Etasi athasi an tuphe, &c.

In translating this important passage I have been divided between two interpretations both equally sanctioned by the pandit;—first, यं कंचिदिदामि हनं तं दहामि कारिणं एनं प्रतिपादयेहं द्विवारतश्च चारमेहं एव च मे मोक्षमनो दिवारः।

'Whomsoever I discover to be a murderer him do I desire to be imprisoned:—this do I publicly notify, and (if guilty) a second time I put him to death. And this (will be) a source of two-fold final beatitude to me.'

The principal objections to this reading are, first that *du* is never used in this dialect for *dwi* or *duwā* (which would be written *di*, or *duwā*), but for *duh* or *dur*, hard: and second that *moksha* is written *mokha* not *mokhya* as appears in both the instances before us. The second reading requires several changes of letters where they are however very clear on the stone, or at least in the copy made by Mr. KITTOE.

यत्किंचिदाह्वामि चहकं तदिहामि कारितं एनं प्रतिपादयेहं दुर्वारतश्च चारमेहं एव च मे मोक्षमनो दुर्वारः

"Whatsoever I say that I desire to be carried into effect,—this do I declare: and I execute it in spite of all opposition; and this my supreme will is irresistible."

* See WILFORD's Essay, Asiatic Researches. VIII, 337, 338.

The nearest approach to the original text will be found to lie between these two readings, taking the first half of the former and the last of the latter; this is the reading I have accordingly adopted in the translation, while I nevertheless think it incumbent on me to conceal no *variorum* interpretations which may help to a right understanding of a passage whereon so much depends.

In token of the inflexible nature of this monarch's orders, the proclamation then announces, that a certain *chaitya* or *tope* is to be called the 'commandment *tope*:' *gnusathi* or *anushásti tuphe*. The word *tuphe*, 𑀭𑀺𑀭𑀸 is evidently the original of the modern expression 'tope:' in the regular *Páli* of books it is written *thúpa*, which is again directly derived from the Sanskrit original 𑀲𑀸𑀮𑀸𑀭𑀸: *stúpah*, an artificial mound of earth, (or of building material?), hence doubtless applied (though the dictionaries do not give this meaning), to the pyramidal monuments of the Buddhists. *Am tuphe* I suppose to be a corruption of *ayam tuphe* 'this tope' in the nominative case.

The sentence next following seems an injunction or invitation to all loving subjects to flock thither and receive instruction from the holy men there located. A similar expression (*bahúsu pánasahasasu, &c.*) occurs on the western tablet of the FEROSÍ inscription, but there, instead of a *chaitya*, the object of attraction is the *aswatha* or holy fig tree, if indeed the sense has been rightly apprehended; but from the occurrence of words similar to *aswatha* in the present edicts,—*aswásevu*, *swasanam*, *swasatam*, I am inclined to deduce them all from the root 𑀲𑀸𑀮𑀸𑀭𑀸, breathe,—thus *aswatha abhitá* (around the holy fig tree) will become *áswasitá abhítá* for 𑀲𑀸𑀮𑀸𑀭𑀸𑀲𑀸𑀮𑀸𑀭𑀸𑀲𑀸𑀮𑀸𑀭𑀸: 'breathing fearless' or 'living in security.' The initial *a* in this case should however be long, whereas the facsimiles just received from Captain BURT, prove it to be short, so far confirming the original reading; but on the other hand Mr. TURNOUR, our best authority, gives the latter sense,—*aswatha abhitá kam-máni pawatayevun*, 'should follow a line of conduct tending to allay alarm.'

Having adverted rather out of place, to the term *swasatam* I may further observe that the title of *Mahámátá-aswasatam-náma* is apparently given to one of the *chaityas*, or perhaps to the platform of the elephant situated just above the inscription, and that it means the 'place of breathing, or of quiet repose for the priests.' This name we may conclude to be preserved in the modern appellation of the rock 'the *aswastama*,' for which indeed it would be difficult to find a better derivation. The Hindus of the place declare it to be name of the stone

elephant called after one in the Mahābhārata,—while my own pandit supposed it a corruption of *asvastambha*, the horse-pillar.

Another local name of the inscription can be traced in an equally satisfactory manner; the present village of *Dhauḷī* being evidently named after the *Dubalāhi tupha* mentioned in the last edict,—the 'shrine of the feeble' from दुर्बल, in modern Hindī *dūblā*. This establishment was probably a kind of hospital, and if Mr. KITTOE's conjectures as to the small rock mortars be correct, it must have been amply provided with medicamentary concoctions!

The name of the *Kalantam tuphe* (if this be indeed its name), has not been equally fortunate in its preservation, and nothing can be discovered like it in the neighbourhood. I imagined that it might be read the *Kalinga tupha*, but on ré-examination of the rock the word was found to be correctly written in the transcript. It may be read *karanda tuphe*, the beehive tope; but, as *kālāntam*, it has a more plausible interpretation,—the end of time!

The mutilated state of many passages in the inscription as usual prevents my stringing the whole together in a connected shape; but from the parts extant I should be inclined to regard these two proclamations as intended chiefly to provide for the reading and due observance of the principal string of commandments, which occupy the central space on the stone; as well as to record the foundation of the several monasteries of ascetics mentioned above.

In both of them is an express regulation as to the time of the year when the edicts are to be read aloud—not exactly when two or three are gathered together—but literally 'when even only one be present!' The seasons appointed are nearly half-yearly—one in *Bhādra* (if *Bhātun* may be so interpreted) (August) and the other in *Phālguna* the *antamāsi*, or last month according to the Buddhists (February—March) or near the vernal equinox. By the expression *Tisena nakhatena* in the instrumental case—'with the *Tisa* lunar mansion,'—is to be understood, when also the moon is in the mansion of *Tisya* or *Pushya*, the eighth *nakshātra* counting from *Aswini*. Now as the moon is full in the mansion whence the month is named, the *Tisya tithi* will fall about the 24th of *Phalgun*, and about the 12th of *Bhādra*. The veneration in which the mansions of *Punarvasune* and *Pushya* were held by the Buddhists was alluded to in my observations on the south pillar edict at *Delhi*, (Vol. VI. page 575).'

Besides the order for reading ASOKA's homily on specified days, particular allusion is made to the five-yearly festival or fast, which is also provided for in the third of the *Girnar* edicts (see page 264). In re-



marking on the word *anusayanam* there used, I stated that such a periodical humiliation was not known at the present day. On further inquiry however I learn that a practice does prevail in such Buddhist countries as are still independent, which seems precisely to explain the terms of the inscription. In *Siam* for instance the Buddhist monarch every year in the month of *Asārha*, throws off his regal robes, shaves his head, adopts the yellow sackcloth of a novice, and does penance for a few days in one of the *vihāras* along with all his court;—slaves are even bought to be shaved and initiated as an act of virtue in their converter. In *Ava* the same practice prevails. Even in Calcutta, I am told, among the small *Maga* population here, the adoption of the yellow dress and abstraction from worldly pursuits for a period is not an uncommon occurrence, and the term employed is, *nikkhama*, exactly that found in the inscription.

My friend Mr. CSOMA DE KÖRÖS has pointed out to me the following passage in GEORGI'S 'Alphabetum Tibetanum' on the practice of fasting in *Tibet*.

'Jejunia tum Xacaitis ascetis, tum etiam laicis communia duplicis sunt generis. Alterum quod appellant *Gnunnè nigidum* (བུ་མུ་མུ་མུ་), clauditur horis integris viginti quatuor. Tanta est jejunii hujus severitas, ac superstitio, ut ne ipsam quidem salivam, sponte fluentem in ore, ad fauces retrahere, ac deglutire liceat. Illud plerique agunt *tribus continuatis diebus*, unica theæ potione, quam hora matutina sumunt, recreati. Alterum jejunii genus vocant *Gnennè* (བུ་མུ་མུ་མུ་—Sans. *upavāsa*) Vespere semel prandent. Licitum tamen est interdiu bibere. Laici frequentius, quam Ascetæ hujusmodi jejunia observant. Sed religiosi et sanctimonialibus severissime præceptum est, ne unquam inter prandium et cœnulum quicquam vel bibere vel degustare audeant.

The mention here of *three days* leads me to suggest that for the *tini vasāni*, *threc years*, of the first tablet it will be more rational to read *tini divasāni*, three days, for the period of humiliation to be enforced in the territories under the rule of the prince of *Ujjein*.

The term *nikhama* has in Pāli two very different meanings, one as representing the Sanskrit निष्क्रम *nishkrāma*, putting out or off, (in modern Hindi *nikālnā*?) the other being the Sanskrit निःचमः *nikshama*, from the root चम peace, repose, devotion. I am not sufficiently versed in the language to decide in which sense the verbal form here used is to be understood; but from the term *nikhamayisanti anusayanam* I should be inclined to translate 'shall admit into the body of the church, or shall give absolution to the penitent,' for *nikhama* is also under-

stood as the initiatory grade of the priesthood*, as well as self-mortification for religion's sake. The word is frequently to be met with in the *Mahāwanso* whence I extract the following passages, along with Mr. TURNOUR's translation, in illustration of *both meanings* of *nikhama*.

Purissānan saḥassancha, itthiyo cha tatodhikā

Khattiyānan kulāyeva nikkhamitvāna pabbajjā.

'A thousand males and a still greater number of females, descendants exclusively of Khattiya families, impelled by their religious ardor, entered into the priesthood :—

Jāté jāté rājagēhē dārake rudāraḥkhasī

Samuddato nikkhamitvā, bhakkhitvāna gacchati.

'In those days as soon as an infant was born, a marine monster emerging from the ocean devoured it and disappeared.' *Epitome Mahawanso*, p. 81.

Following the translator's first example, the passage *Ujenyā kumālē nikhāmayisati hidasam vatam*, may be rendered, 'The prince in *Ujjein* shall enforce with devotional fervor the self same conduct.'

Taking it for granted that the *Devānampiya* of these two edicts is still *PIYADASI* or *ASOKA*, we may easily discover who was the 'prince at *Oujein*' to whom he alludes. He must be either *UJJENIO* or 'the profoundly sapient great *MAHINDO*' (*MAHENDRA*) son of *DHARMA-SOKA* who entered the priesthood at an early age, and who was deputed along with his sister *SANGAMITTĀ* to spread Buddhism in the *Island of Ceylon*, in the year 306, B. C. (following Buddhist reckoning.) *UJJENIO* and *MAHINDO* were the twin offspring of a romantic attachment of the young *ASOKA*, with the daughter of a gentleman or *Setthi*† at a place called *Chetiyagiri* when he was on his way to assume the viceroyship of *Avanti*. Probably the elder son held this government afterwards, and dwelt there with his mother, who was styled *Queen* and resided in a rich palace: for we find *MAHINDO* paying them a visit previous to his departure for *Ceylon*.

Tadantare nātigaṇan dattḥun katvāna mānasaṇ,

Upajjhāyancha saṅghan cha wanditvā pucchi bhūpatiṇ.

Adāya chaturo thēre Sanghamittāya utajaṇ

Sumaṇan samanerancha, jalabhinṇan mohiddhikaṇ.

Nāṭṭīnan saṅghan kātun agamā Dakkhinagiriṇ :

Tathā tatthā charantassa chhammāsā samatikkamuṇ.

'Having formed an earnest desire to visit his relations during this interval; reverentially taking his leave of his preceptor and of the priesthood, and having also obtained the consent of the king (his father *DHAMMASOKO*), taking with him four theras and the *SAMANERO SAMANO*, the son of *SANGHAMITTA*, who was preternaturally gifted, and master of the six branches of religious knowledge departed for *Dakkhinagiri* for the purpose of administering the comforts (of religion) to his (maternal) relations. There this pilgrim passed six months in this avocation.'

* See the *Amera kosha* (*CLOUGH's Pāli vocabulary*, page 111) ; "*nekkhamman*—the priestly state, renunciation of worldly pursuits for the purpose of devoting one's-self to religious meditation, release from transmigration, mental abstraction or vision, &c."

† One of the *Seth* family, or *वेष्टि* the president, or foreman of an association.

But I am growing too fond of quotations from my constant text book the *Mahawanso*, which falls in so pleasantly with every trifling incident collaterally deducible from these inscriptions that I find the temptation to extract, like ASOKA's orders, irresistible !

I have still one subject to call briefly to the attention of the student, namely, the twice repeated name of *Isa* or *Isána*. The pandit would apply this name to God in a general sense :—and certainly the grievous offence given, *Isáya asulopena*, 'by sacrifice of living things to God' is a sense quite consistent with the tenor of the edict ; but through the extreme vagueness of the Páli imitative grammar, *Isáya* also represents the third case of *isá*, ईषा, ईषेया *irshayá* 'by envy : ' so that it is impossible to assert which of the two is correct. The other instance is in the passage '*Isánameva mañnata mánam*,' which I have translated 'worship ye the lord, the proper object of worship' (ईशानमेव मन्यत मान्यं) but I hold myself by no means responsible for its accuracy, as I do not find *Isá* among the synonymes of BUDDHA.

I may conclude my notes by mentioning the singular effect of the idiomatical expressions *khanakhanasi antalápi tisená* upon the pandit who had been reading all these inscriptions with me—'Now' he exclaimed 'I believe the whole document to be genuine !'—He had all along misgivings whether he had not been at work on a haphazard jumble of old symbols optionally transcribed into as unintelligible Nágari, until the occurrence of a homely idiomatical phrase at once brought him to a conviction of their reality, and encouraged him more zealously to help me to their meaning !

POSTSCRIPT.—I had well nigh forgotten to mention the two modern inscriptions stated in Mr. KITTOE's account to be scratched over some of the caves near *Aswastama*. They are lithographed in Pl. XXV. On reference to Pl. LIV. of last volume, the larger one will be seen to agree in alphabet and in the opening paragraph with the inscription over the elephant cave at *Udayagiri*—but the name of the rája in whose reign they were both cut is better developed in the present specimen. SHÁNTIKARA DEVA, is not to be found in the Orissa list, but is probably one of the *Suryavamsa*, as he has not the epithet *Kesari* ; or he may be one of the 32 princes whose names STIRLING has omitted as uninteresting. The curious figure in the second line, I suppose from analogy to ८८, to be the figure 9. As far as it is legible, the legend may be thus restored :

श्रीशान्तिकरदेवराज्ये स
वेनवे (?) वादितया वैद्यक भ
..... वराटिना

म्वत् ॥ ९ ॥ इत्या गर्भजेन
उपुवहीयकश्च भट्ट ?
म वामदेशस्य (?) कलिताः



' In the ninth (?) year of the reign of Śrī ŚHA'NTIKARA DEVA, music (flutes) should be played (?) by the hermit of the cave of sacrifice; these *maths* (temples) of SIVA have been constructed by HĒDYA CHHATRA BHATT, the son of VAIDYA-KA BHAT, the rich merchant.....'

The other scrap is too mutilated to be worth insertion.

IX.—*Proceedings of the Asiatic Society.*

Wednesday Evening, the 6th June, 1838.

The Right Reverend the LORD BISHOP of Calcutta, Vice President, in the chair.

H. V. BAYLEY, Esq. C. S. and Lieut. C. B. YOUNG, Engineers, proposed at the last meeting were duly elected members of the Society.

MR. SOLOMON CÆSAR MALAN, Bachelor of Arts in the university of Oxford and Professor at Bishop's College, member R. A. S., was proposed by the LORD BISHOP, seconded by the Rev. G. Withers.

Colonel BENSON (lately appointed envoy to the Burmese court) on his return to India begged to be again entered on the list of resident members.

Dr. WM. GRIFFITH acknowledged his election.

Mr. W. ADAM begged his name might be transferred to the absentee list*, as he was on the point of quitting India for America.

The Secretary reported that he had lately examined the roof and found many of the beams completely destroyed by dry rot. The present season made it very inconvenient to commence repairs, but should the measure be necessary the president had kindly placed the grand jury room at the disposal of the Society for its monthly meetings while its own apartments should be unavailable.

[The builder has since given his opinion that the repairs may be postponed till October next, without danger.]

Correspondence.

Read a letter from Sir G. T. STAUNTON, Bart. acknowledging his admission as an honorary member, and stating his readiness at all times to promote the objects for which the several Asiatic Societies had been instituted.

A note from M. St. HUBERT THEROULDE, announced his approaching departure for the Upper Provinces, and thanked the Society for the cordial reception he had met among them during his residence in Calcutta.

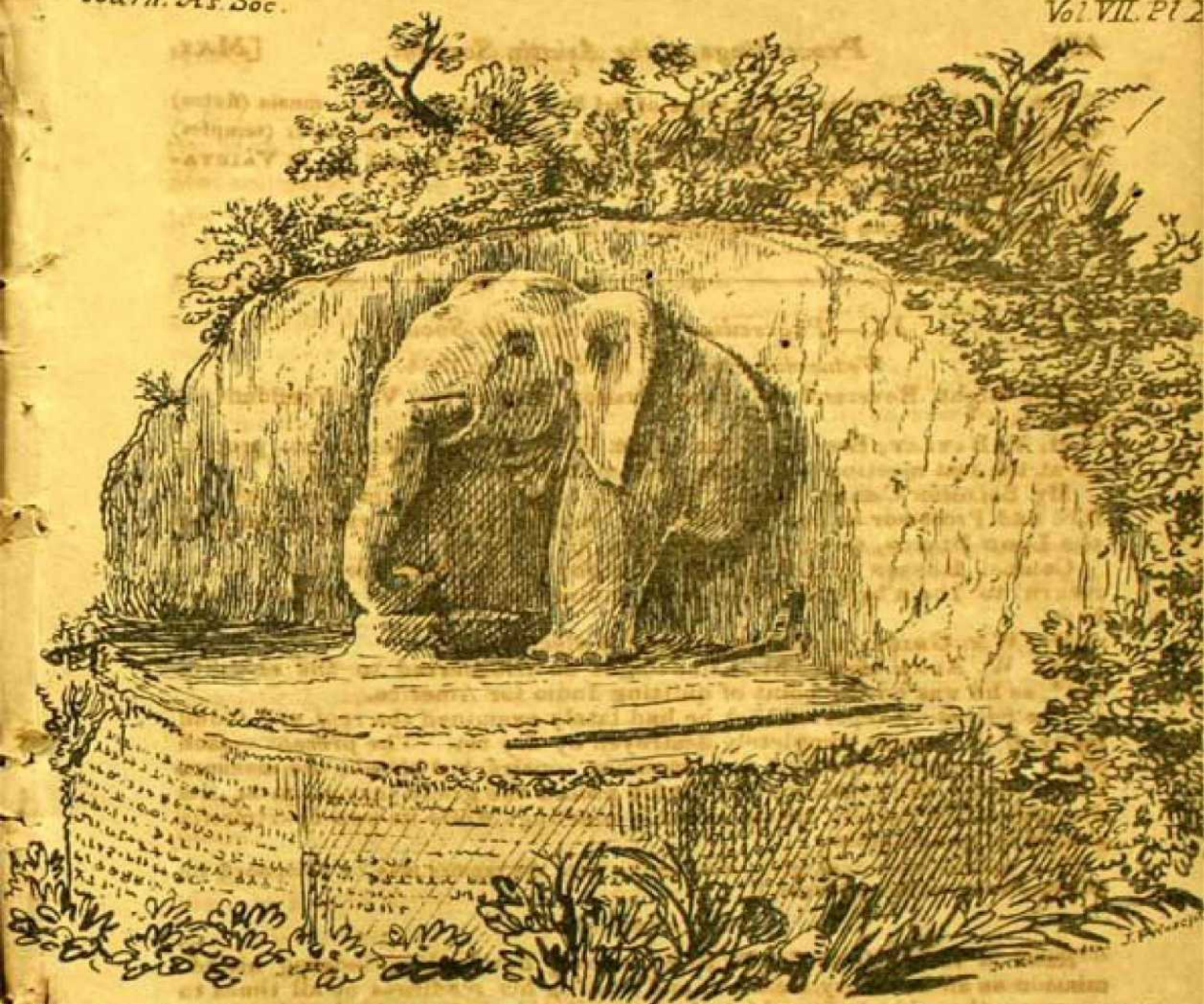
Dr. WALLICH requested on behalf of Lieut. Col. STEVENSON, if it were within the rules, that a set of the Society's Researches should be presented to the library of the artillery regiment at Bombay. After some discussion it was agreed that the principle of distribution and exchange of the publications of a learned association precluded compliance with the present request, lest it should form an inconvenient precedent.

Read a letter from Professor SCHLEGEL, returning thanks for the *Ma-hābhārat* and other works sent to *Bonn*.

The following extract will interest the friends of oriental literature:—

"Non seulement tous les savans qui s'intéressent aux études Asiatiques, mais j'ose dire, tous les hommes éclairés, pour peu qu'ils aient réfléchi sur l'état moral

* Members of the Society by the rules cease to pay contributions when absent from Asia, but continue to be members, and subscribe again from the date of their return.



SKETCH OF THE ELEPHANT, TERRACE, AND INSCRIPTION AT ASWASTAMA.

Modern Inscription, No. 1

གྲིལ་མཁའ་ལྷ་མོ་ལྷ་མོ་
 མཆོག་ལྷ་མོ་ལྷ་མོ་ལྷ་མོ་
 ལྷ་མོ་ལྷ་མོ་ལྷ་མོ་ལྷ་མོ་
 ལྷ་མོ་ལྷ་མོ་ལྷ་མོ་ལྷ་མོ་
 ལྷ་མོ་ལྷ་མོ་ལྷ་མོ་ལྷ་མོ་
 ལྷ་མོ་ལྷ་མོ་ལྷ་མོ་ལྷ་མོ་

Modern Inscription, No. 2

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et intellectuel de l'Inde, et sur les bases de la puissance Britanique de ce pays, on été péniblement frappés de cette ordonnance qui a paralysé l'activité du Comité de l'instruction publique; et l'on a su apprécier la résolution généreuse de la Société Asiatique de réparer le tort que l'ignorance et la barbarie menaçaient de faire à la cause de l'érudition et des lumières. Cette Société, depuis sa fondation, a rendu d'immenses services; elle a puissamment contribué à l'avancement de nos connaissances. Nous lui devons une infinité d'observations et de découvertes, et cette abondance de matériaux dont nous jouissons aujourd'hui. Le département auquel les orientalistes, qui vivent en Europe, doivent se vouer de préférence, c'est la critique philologique, la correction la plus soignée des textes et l'art de l'interprétation. En Allemagne et dans le nord le zèle pour l'étude du Sanscrit se maintient toujours et se répand même de plus en plus. On enseigne cette langue dans plusieurs universités Allemandes: à Bonn le professeur LASSEN et moi, nous en donnons des cours concurremment tous les semestres, sans avoir égard au petit nombre d'écollers qui se présentent. L'hiver dernier j'ai eu parmi mes auditeurs un jeune savant de Copenhague, et un autre né à St. Petersbourg. Un orientaliste d'Upsala, qui, le premier dans son pays, s'est appliqué au Sanscrit, et a fait un voyage littéraire dans ce but, me fut adressé dernièrement par le professeur WILSON, et je l'ai trouvé assez avancé pour pouvoir le recommander au gouvernement Suédois.

"J'ai été douloureusement affecté par la mort de mon immortel ami et démon grand oracle COLEBROOKE, quoiqu'elle ne fût que le terme d'une existence depuis longtemps brisée par les infirmités.

"Le professeur ROSEN, dans la force de l'âge, a été enlevé presque subitement à ses amis et aux lettres, dans le moment où il se préparait de passer en Allemagne, afin de revoir sa famille ou m'assure que l'impression de son travail sur le Rig-veda est presque achevée. Les études asiatiques ont aussi fait une perte dans la personne du Baron SCHILLING DE CRONSTADT, conseiller d'état à St. Petersbourg. Mon savant ami avait fait un voyage en Sibérie, et séjourné long temps au-delà du lac Baïkal parmi les Buriates. Il s'était concilié la bienveillance de quelques prêtres Bouddhiques, de sorte qu'il en a rapporté une immense collection de livres Tibétains. Les doubles seules, qu'il mit en dépôt chez moi, il y a deux ans, remplissaient six caisses. Je les ai expédiées à l'institut de France, auquel il en avait don. La grande collection est restée à St. Petersbourg, et passera sans doute à la bibliothèque Impériale."

The Secretary communicated the following extract from Professor WILSON's last letter on the subject of the MASSON collection of coins.

"I have been lately occupied rather industriously with MASSON's coins. We received those of 1833-34 in the summer; those of 1835 only about three months ago. After inspecting the first batch I proposed to the court through the chairman and several of the directors to give a lecture upon them; but this was thought an unadvisable innovation and the measure was abandoned. I was determined however not to drop the subject, and therefore gave my lecture the form of a memoir, which I presented and which was received very graciously. I suggested at the same time the advisableness of publishing a book with plates, and offered to prepare the materials if the court would bear the expense, proposing that after taking such number of copies as the court might require, to make over the rest to Mr. MASSON's family for their benefit. There seems to be a disposition to accede to the arrangement, or at any rate to give to MASSON or his family some further remuneration for the coins as their pecuniary value is much beyond what they cost."

By a recent letter from Capt. BURNES it would appear that a supposed reflection had been cast on MASSON's labours in Professor RITTER's remarks on the topes published in a preceding journal.

"MASSON was not one of those who dug into the topes to get at the hidden treasure without thinking of other things; his researches were laborious, minute, and scrutinizing; height, depth, &c. were all noted. I have seen some of his MSS. in which particulars are preserved amply to satisfy the German Professor."

We may add to the above that we are sure no slur was intended on MASSON's no more than on General VENTURA's or COURT's explorations, in which every care was taken to record the exact position of the 'trouvailles.' The information sought by the German Professor was of a specific nature.

A letter from the Society's Paris agent dated 8th January, mentioned the death of the Baron SCHILLING before he had heard of his election.

Major TROYER mentions that the Sanskrit text of the six first books of the Tarangini is printed, and the French translation is put to press. He has now accept-

ed the proposal of the Earl of Munster on the part of the Roy. As. Soc. to complete the English translation of the Persian *Dabistân* of which the late Captain SHEA had done about one third when he died. Major TROYER had translated the whole into German whilst in Calcutta; he will be occupied on the English version and the editing of the whole, next year.

M. BURNOUR Sec. Paris Asiatic Society announced the receipt of the Society's Journal of June containing the pillar alphabet, and the sensation it had created among the learned:

"Le jour où je l'ai reçu j'allais à l'Académie; quoique ce savant corps ne prête son attention en ce moment qu'au Grec et à l'Arabe, j'ai demandé la parole, et j'ai trouvé de la verve pour exposer tout ce que vous veniez de faire, de beau et de grand par votre découverte. J'ai été écouté avec une religieuse attention, et je sais que la communication a fait quelque effet. Chose singulière! j'avais déjà fait des essais infructueux sur la copie du VII^e vol. des As. Res.: j'avais huit lettres, mais m'étant trompé lourdement sur H^o et ne sachant que faire de L je n'avais pu passer outre. Votre L est un véritable trait de vive lumière qui a rendu à ce caractère le même service que le n des inscriptions cuneiformes trouvé par Rask. J'ai communiqué votre lettre à M. JACQUET qui venait, peu de jours avant, de recevoir une masse d'inscriptions de *Girnar* exactement dans le caractère que vous avez déchiffré si heureusement. Il s'est mis avec empressement, et il vous écrira lui-même."

Some correspondence with the Secretary of the Geological Society of London was read, relating to a missing No. of their Transactions.

Read a letter from M. G. VROLIK, Secretary to the Royal Institution of Sciences and Arts at Amsterdam, proposing an interchange of publications and presenting its transactions as far as published. Resolved, that a suitable return be made of such vols. of the Researches as remain in store, (from vol. 12 to vol. 20.)

Mr. J. MINCHIN, Secretary Madras Literary Society, and Professor DANIELL, Sec. Roy. Institution of London, acknowledged presentations.

Library.

The following books were presented:

The Sāṅkhyā Kārikā, 1 vol. 4to.—by the Roy. As. Soc. Or. Trans. Committee.

List of the Members of the Royal Asiatic Society of Great Britain and Ireland, corrected to the 31st of July, 1837—by ditto.

Histoire des Sultans Mamlouks, écrite en Arabe par Makrizi, et traduite en Français par M. QUATREME'RE, Tom. I. 4to.—by the same.

Institutiones Linguae Pracriticae, by Dr. CHRISTIAN LASSEN, Professor at Bonn, the 3rd fasciculus—by the author.

Nieuwe Verhandelingen der Eerste Klasse van het koninklijk, Nederlandsche Institut van Wetenschappen, Letterkunde en schoone kunsten (Parts I. II. III. IV. V.) Amsterdam, 1827—1836—by the Amsterdam Royal Institute.

Transactions of the Zoological Society of London, Vol. II. Part I., London, 1836 and Journal,—by the Society.

The following by the Statistical Society of London.

Tables of the Revenue, Population, Commerce, &c. of the United Kingdom and its Dependencies, Parts III. IV. V. each with a Supplement, folio, London, 1834—37.

Catalogue of Parliamentary Reports, 1696—1834, ordered by the House of Commons to be printed, 15th August, 1834.

Report, Vaccine Board, ordered by the House of Commons to be printed, 28th August, 1833.

General Statistics of the British Empire, by JAMES M'QUEEN, Esq. London, 1836.

Statistical Journal and Record of Useful Knowledge, for October, November and December, 1837, London.

The following were also presented.

Proceedings of the Agricultural Society of India, January to May, 1838—*by the Society*.

W. ADAM's Third Report on Educational Statistics of India—*by the author*.

The Meteorological Register—*by the Surveyor General*.

Fauna Boreali-Americana, or Zoology of the Northern parts of British America. Part 2nd, containing the birds, with plates and cuts, by Dr. RICHARDSON, and W. SWAINSON, Esq. London, 1831. 4to. 524 pages, Rs. 50—*purchased for the Society by the Museum Committee*.

11 vols. Naturalist's Library, edited by Sir WILLIAM JARDINE, at 3 Rs. per vol. the remaining vols. to be supplied at the same price—*ditto*.

Lardner's Cabinet Cyclopædia, Treatise on Geology, Vol. I. London, 1837—*from the booksellers*.

— Eminent Literary and Scientific Men of Italy, Spain and Portugal, Vol. III. London, 1837—*from ditto*.

Two series of circulars, one addressed to the Asiatic Society of Bengal, the other to the Asiatic Society of Calcutta! forwarding prospectus of Foote's medical pocket book and almanack.

Literary and Antiquities.

Mr. Secretary PRINSEP, transmitted on the part of Government, vocabularies of the *Baraky*, and of five other languages spoken in the Panjáb, compiled by Lieutenant R. LEECH, of the Bombay Engineers.

In reply to the Society's application to the Governor General of the 15th December, requesting that the executive engineer might be permitted to effect the conveyance of the broken pillar presented to the Society by Rāja HINDU RAO from *Delhi* to Calcutta, Mr. Secy. MACNAUGHTEN forwarded copies of correspondence with Captain G. THOMSON, and Captain T. S. BURT of Engineers on the subject, and requested on the part of the Gov. Gen. to know whether the Society would still wish its removal.

Captain THOMSON reported that the transportation of the shaft would cost 2000 rupees:—but Captain BURT suggested that by cutting off the inscribed part it might be sent down for a tenth of that sum, though he doubted whether a facsimile would not answer every purpose, considering the mutilated condition of the inscription.

The object of possessing the *Delhi* fragment in the Society's museum being rather as the only actual specimen of the ancient character which it would be possible to make portable, than for the sake of reading its contents, which are known and published in the Journal for last September, it was resolved still to request the aid of the Governor General for the dispatch of the inscribed portion at least of the shaft under the superintendence of Captain BURT.

Mr. B. H. HODGSON having been informed of the Society's wish to publish the text of the *Lalita vistara* in Sanskrit and Tibetan with a translation by M. CSOMA DE KÖRÖS, sent down two more manuscripts of this standard Buddhist work for collation with the Society's copy as it passes through the press. One of these copies bears the marks of great antiquity, and both are more correct than the copy in the library.

Major JAMES LOW, M. A. S. C. offered to the Society for publication a paper entitled "Excursions to the Eastward, No. 1, or extracts from the journal of a Political Mission to the rāja of *Ligor* in *Lower Siam*, with drawings.

Captain T. S. BURT forwarded the 87 facsimiles of various inscriptions mentioned at the last meeting.

He had also lately taken with considerable trouble, complete impressions of the *Feroz lāth* inscriptions and of the inscription on the iron pillar at *Delhi*, which has been so long a desideratum. They had been made over to the Secy. Gov. Gen. for transmission.

Statistical.

Mr. W. ADAM, presented on the part of Dr. A. KEAN, some tables of the population and of the births and mortality in a village of the *Moorshedabad* district. Referred to the Statistical Committee.

Dr. Kean hopes in the current year to be able to add marriages to his list, and to extend it to a greater number of villages.

PHYSICAL DEPARTMENT.

Museum.

Mr. KITTOE proposed that two or more Musulmán lads be entertained as apprentices to M. BOUCHEZ, to learn the art of preparing birds and animals, with the understanding that they are to be occasionally sent with members of the Society, or officers of Government who may be deputed to explore any part of the country,—and that the expense be defrayed out of the Curator's allowance granted by Government.

Mr. KITTOE said, that during his late trip, had he been provided with such an assistant he would have been able to have brought back many specimens for the museum. The proposition was approved, and referred to the Committee of the Museum to be acted on.

Tidal Observations.

Mr. E. BLUNDELL, Commissioner of the *Tenasserim* provinces, forwarded two series of observations of the tides, one by Captain McLEOD, at *Mergui*, the other by Captain CORBIN, Harbour Master at *Amherst*, made in conformity with Professor WHEWELL's circular.

Geography.

The following letter from Captain PEMBERTON in command of the deputation to *Bootán*, descriptive of the progress of the expedition, in continuation of the extracts published in the Proceedings of the 7th February, was communicated by the Secretary.

Tongro Bootán, March 12th, 1838.

Lat. $27^{\circ} 25' 32''$ Long. about $90^{\circ} 17'$; 6527 feet above the sea.

"We left *Devagir* on the 21st January, and reached this place in twenty marches, though forty days were consumed on the road from various unavoidable causes. The very first march we crossed an elevation of 7000 feet above the sea, a good foretaste of what we had subsequently to expect. The third march brought us to a village called *Sasee*, not more than 4300 feet above the sea, but where we first found the most beautiful and extensive fir forests, I had ever seen—all growing on mountains of hornblende slate which proved to be the prevailing rock in this part of *Bootán*. From *Sasee* we ascended on the following day to *Belphee*, a mile or two beyond which is a temple whose elevation proved by measurement to be 8300 feet above the sea; this point is geologically important, as here the hornblende slate is succeeded by a talc slate with garnets thickly disseminated, and traces of the transition began to appear between six and eight thousand feet. Here we first saw ice on the ground, and traces of snow on a ridge to the north about 2000 feet higher. On the 1st of February we reached *Tassgong* called also *Berhan*, the residence of a sooba or prince of a district on the left bank of the *Monas* river in Lat. $27^{\circ} 19' 37''$ Long. about $91^{\circ} 33'$ and 3182 feet above the sea. The *Monas* flows 1200 feet below it over a bed of gneiss boulders, with immense velocity and a very considerable volume of water. This river which you may remember enters the *Burhamputer* at *Jugigope* nearly opposite to *Goalparrah*, appears to be the principal drain of two-thirds of the waters of *Bootán*, every stream between it and this place falling into it, and the whole forming a stream which in the rains rushes into the *Burhamputer* with a velocity which few boats can stem. At *Phullury* three marches from *Tassgong*, we for the first time had a fall of snow which lasted two days, and gave to the whole country an aspect precisely similar to that which you can imagine at home in a November day. Snow balls were flying about in every direction and the *Bhuteeahs* appeared to enter as keenly into the sport as our party. We were six thousand feet above the sea, and though the fall at this elevation was sufficiently heavy to cover the ground to a depth of five or six inches, the hills



500 feet below us were scarcely at all affected by it, and summer and winter were reigning at the same moment on opposite sides of a mountain torrent at distances not more than a mile apart. We had evidently however fairly entered a region whose temperature was far below what we had been accustomed to for many years, and vegetation no less than sensation proved it; on every side we had oaks, firs, rhododendrons, weeping cypresses and apples. At 10 in the morning of the 8th February, while the snow was falling heavily the thermometer stood at 46°, and strange to say in the afternoon at 4 p. m. with the thermometer at 42°, a rapid thaw took place, and we resumed our march on the 10th to *Tasangsee* the residence of a sooba in Lat. 27° 34' 25" Long. 91° 15' and 5290 feet above the sea.

We had now arrived near the north-eastern foot of a lofty range of mountains called the *Domylala*, the passage of which we were told would prove difficult as the greater portion of it lay through snow, but that we should be able to cross it in time to obtain shelter at a village on the opposite side before night. Under this impression we started from a halting-house on the morning of the 15th of February at an elevation of 8000 feet above the sea, and after ascending 1000 feet entered a snowy region, where we found every tree heavily laden with icicles and snow, and the latter in many places so deep as to render extreme care necessary in travelling along the narrow ledges of gneiss, which projecting in many places from the face of the mountain afforded a very insecure and scarcely distinguishable path for the traveller. Here we met cedars of considerable size, but the snow so buried all the inferior shrubs that it was almost impossible to obtain a sight of one. We toiled up this steep and weary ascent until 1 o'clock when we reached a ridge which proved to be 11245 feet above the sea. This we were told was the culminating point of the range, but we found to our cost that it was not so; we descended for some time and again crossing numerous peaks by zig-zag paths intersected by torrents which rushed under a superficial coating of ice, finally reached the northwest crest from whence we looked down almost perpendicularly on the massive platforms which formed the basis of the ponderous ridge above. This point was 12480 feet above the sea, and we commenced the descent about 3 p. m., and here the cold became much more severe; the rocks were coated with ice; huge icicles hung from them in every direction, and yet the thermometer stood 2° above the freezing point*. At halfpast four we reached an open platform sloping gradually to the westward, and then pushed on through a succession of ravines expecting every moment to arrive at the promised village where we were to obtain rest and refreshment. The increasing darkness and difficulty of the road rendered advance every minute more impracticable and we were at last so completely involved in darkness that it was quite impracticable to advance further, no trace of a path being perceptible, and we determined to retrace our steps to an open spot in the rear rather more free of snow than any around us. We did not reach this halting-place until past 8 o'clock, when we contrived to make an old tree contribute to our comfort by converting some of its branches into fire-wood; and passed the night in the open air surrounded by snow at an elevation of 9500 feet above the sea. BLAKE and myself with three or four servants were the only persons who reached this spot. GRIFFITH had halted a little behind us and the people of the camp were scattered over a line of about 3 miles in length, extending from the foot of the descent to the entrance of the ravines. The village we did not reach until past 10 o'clock the following morning, and several of the Bhuteahs with the baggage did not arrive until two days afterwards.

In crossing this lofty range several of the party suffered from vertigo, sickness and difficulty of breathing, and even much lower down the highly rarified state of the air was proved by the faint report of our guns. We had fortunately a perfectly calm atmosphere while effecting this arduous passage or the consequences might have proved most serious to many of our followers, none of whom had ever before been so exposed. *Linge* the village at which we halted for two days, is 6330 feet above the sea, so that in this march we had ascended three thousand and descended nearly six thousand feet, in a distance of 15 miles.

* See the explanation of this apparent anomaly J. A. S. Vol. V. 427.—Ed.

Our next march was to *Lengloang* the residence of a sooba in Lat. $27^{\circ} 29' 13''$ (our extreme northern limit thus far) Long. $91^{\circ} 3' 45''$ and 4523 feet above the sea. These residences of the soobas are all built on the summit of a projecting spur from some contiguous range, with a stream flowing on either side from the superior heights. The edifice generally consists of a series of buildings erected without any particular attention to form, the sole object being apparently to make the most of the very scanty ground adapted to building on the sloping face of a narrow ridge, and the filth that reigns in these "baronial castles" is greater than you could possibly imagine, but admirably adapted for the residence of the disgustingly dirty race that inhabits them. I have never in all my wanderings met with a people so radically filthy in all their habits. After leaving *Lengloang* we travelled two days through a more open and better cultivated tract of country than we had previously seen, the fields being all terraced and the face of the hills less precipitous.

On the third day however we again left this comparatively civilized portion of *Bootan* and struggled amidst snow and ice to obtain the massive flank of the *Roodoola* range of mountains, which like that crossed on the 15th, was covered with snow from its summit down to about 4000 feet above the sea, when the first traces began to appear. We halted for the night of the 25th of February, in a miserable hovel at a place called *Peirce* 9700 feet above the sea, surrounded on every side by snow, and with the formidable ridge of the *Roodoola* towering full 4000 feet above us. The snow had recently fallen and we suffered extremely from its want of compactness on the following morning, when we commenced climbing the zig-zag path which led to the ridge; the path was in many instances, where it was carried round the mural side of a peak, entirely formed by narrow slabs of gneiss only a few inches broad, forming under the most favourable circumstances but an insecure footing, and covered as they now were with snow from two to four feet deep it required the utmost caution to avoid falling over the precipices into the abyss which yawned below. At one spot we had nearly lost our ponies which did go over, but were saved by strong halters which had been secured to them in anticipation of the accident. Two years ago in this same month (February) five Bhuteeahs were lost at this formidable pass; they fell over the precipice, were buried in the snow, and their bodies discovered in the summer when it had melted. A narrow defile between two peaks of gneiss which rise about 500 feet above the path brought us to the spot from which the range derives its name of *Roodoola*, and this proved to be 12335 feet above the sea level. We ascended about 300 feet higher and then commenced a rapid descent through cedar and fir forests to a mountain valley called *Boomdunglung* 8670 feet above the sea; one of the most attractive spots we had seen in *Bootan*, surrounded on every side by mountains covered with snow, which gradually disappeared as it reached the elevation of the valley. Here we shot magpies, larks, curlews, a quail, a duck, saruses, and some others which we had not before met with. We have since passed through two more of these alpine valleys, those of *Jugur* and *Jaresah* which are respectively 8150 and 9400 feet above the sea. We were at these places on the 5th instant, when the scanty wheat crops were barely above the ground, while here at an elevation of 6500 feet, and only three geographical miles further south, the wheat is in ear, but promising a miserable return. These three valleys are the only ones we have yet met with since entering the hills, they are watered by streams of remarkable transparency, and the heights around them are either composed of gneiss, or a talcose slate in a state of rapid decomposition.

We have now entered apparently a more temperate region, though the weather is bleak and unpleasantly cold at times. We hope to start for *Punakah* in a day or two, which is not more than five marches distant. It is strange that every Bhuteeah who has been asked points to the southward of west as the division of *Punakah* while TURNER in his map gives its Latitude at $27^{\circ} 57'$ about $27\frac{1}{2}$ miles to the northward of this: is it possible that he can have made such a mistake? I think not; but I hope soon to be satisfied on this point. Communication can be held with *Goalparrah* from hence in 8 days, and I am preparing my dispatches to send off as soon as I have an opportunity. There has been a rebellion in the country; the Deb who guided the helm of the state when I left



Calcutta has been thrown overboard and another king Log now sits in his place to be kicked after his predecessor whenever an ambitious aspirant after regal honours can collect half a dozen musquets and five or six ounces of gunpowder. The sanguinary contest has been waging for seven months, and the list of killed and wounded from all I can learn might be included in a nutshell; fighting is not their vice, but filthiness in person, dress and house is. The former Tingsao Pile has been deposed and a successor arrived three days ago to take charge of the building which they have chosen to call a fort or castle. I am collecting all the information I can, but the Bhuteeahs are not very communicative, and money here as elsewhere is the only key to their knowledge box."

Astronomy.

Dr. McCLELLAND called the attention of the members to the following curious astronomical phenomenon, made known to him by a letter from Sir J. W. HERSCHELL, dated *Cape of Good Hope*, 13th January, 1838.

"We are treated here with one of the rarest and most remarkable of astronomical phenomena, viz. the sudden and unexpected accession of brightness, by which a well known star of the second magnitude, η , in the constellation Argo has within these two months grown to surpass all the stars of the first magnitude except Sirius, Canopus, and α Centauri; to the latter of which it is now nearly if not fully equal. During four years that I have been continually observing this star I never had the smallest ground for suspecting it to be variable: nor has it ever before so far as I am aware been noticed otherwise than as a large star of the second magnitude. I am watching the progress and phases of this singular phenomenon as you may suppose with great interest, and only regret that my approaching departure for Europe will probably oblige me to trust to the reports of others for its ultimate event."

Dr. McCLELLAND stated that he had written to Mr. TAYLOR the *Madras* astronomer on the subject, as the star might better be observed from his observatory than at Calcutta.

Botany.

The following inquiry regarding the gamboge tree was submitted for solution to such members as might be best situated for its investigation, by Dr. J. GHANT MALCOLMSON of the Madras Medical Service, now in Europe, in a letter to the Secretary.

N. Britain, December 7th, 1837.

"I venture to renew a correspondence with which I have occasionally troubled you, at the request of Professor GRAHAM of *Edinburgh*. You are aware of the investigations he and Dr. CHRISTISON have lately been engaged on, in reference to the gamboge tree, about which so many erroneous opinions have been received. I had collected some specimens from the gamboge tree near *Rangoon*, and the leaves and branches were found by ROYLE and myself to differ from any in the India House collections; and Mr. BROWN having compared them with the specimens of LOUVEIRO's plant from *Siam* in the British Museum, found it to resemble it very much, but to be apparently of a different species, the leaves being much softer and more pointed. The tree was in full fruit in May and I did not see the flowers: unfortunately the fruit I had preserved in spirits and sent home, never reached their destination. I considered the tree to be the *Guaicuma gambogia* of *Pensoon*, but it is not necessary to detain you with any account of it, as any of your readers who may be able to supply Dr. GRAHAM with specimens will have no difficulty of obtaining the information on the spot. The trees I saw had been wounded, and much fine gamboge had run down the trunk. Leaves, fruit, flowers, and sufficiency of the gamboge (with bark), for experiment, are desired. The following extract from Dr. GRAHAM's letter will explain this: 'LOUVEIRO's gamboge tree he believes to be the same with that of Burman (the *Ceylon* plant), in which he is certainly wrong. He calls it *Gambogia gutta*, and describes it thus: Tree large, with spreading branches, leaves broad, lanceolate, quite entire, flat, thick, scattered, petiolate, small. Flowers saffron-colored, terminal, on many flowered peduncles. Calyx of four leaflets: leaflets sub-rotund, concave, spreading. Corolla of 4 petals,

ovato-oblong, unguiculate, spreading. Stamina numerous, inserted into the receptacle. Stigma sessile, many cleft. Berry sub-rotund, 8-angled, 8-locular, loculaments monospermous: seed oblong ovate. Skin yellow, thin and smooth, pulp yellow, succulent, sweet, eatable. Size of the fruit 2 inches (he does not say whether in length, breadth, or circumference). He adds, that it is frequent in the woods of *Cochin-China*, and more so in *Siam* and *Cambodia*. I do hope that this account will enable you to procure for me, specimens of the plant in flower and fruit and of the gamboge obtained from it. It would appear that the flowers are hermaphrodite, but possibly this may be a mistake, and it would therefore be very important that this point should be examined. I have now ascertained not only that the *Ceylon* tree has flowers of distinct sex, but that the different sexes grow upon different plants. It is very possible that *Louveiro's* plant has the several organs arranged in the same way, but the female flower looks as if it were hermaphrodite, having always several abortive stamens round the germen. Have the kindness to beg that the fruit may be sent either in spirits or in a saturated solution of salt in water,* that the history of this important drug would be cleared up*. Thus there are evidently two plants, one in *Ava*, the other to the east of that country, and both should be procured."

Dr. MALCOLMSON, in the letter above quoted, gives the following information on the fossil shells of the *Nerbudda* basalt.

"I have drawn up a paper on the *Nagpore* fossils, of which Mr. SOMERBY has furnished me with beautiful drawings. All the shells are lacustermes, and render it probable that the great basaltic eruptions between the *Nerbudda* and *Godavary* and south of that river, took place in the *tertiary* epoch. The genera are *Unio-Melania*, *Physa*, *Limnea*, *Paludina*:—2 species of the fresh water crustacean called *Cypris*; a new gyrogonite. The whole are undescribed. The *Sagar* and *Jubulpoor* shell is considered to be a *Physa*; and certainly the same as some of those from the *Deccan*."

Natural History.

A letter from Mr. WILSON SAUNDERS (late Lieut. Beng. Engineers) gives some particulars of the duplicates of insects from *Saugor*, presented by Major HEARSEY, which will be interesting to Indian entomologists.

"I have been highly delighted with your present of Indian insects, which arrived in perfect order. The *Lepidoptera* are very beautiful. Among the *Coleoptera* there is a *Carnonia*, some undescribed *Longicornes* allied to *Lamia*, and two or three insects of the family *Chrysomelidæ* which I believe to be new. The *Hymenoptera* offer a fine new species of *Palopeus*, and an *Eumenes* undescribed. The *Diptera* contain two new genera, which I shall take an early opportunity of describing, the first in the family *Jabanidæ*, and the second belonging to *Jephritidæ*, the latter very distinct with a most singular encrassated nerve at the base of the wing. In the orders I do not see any thing new as yet. Our collections are all poor in Indian insects. I am most anxious to get specimens of the curious coleopterous genus *Paurus*, and of the dipterous genus *Diopsis*, in order to complete a description of these tribes."

Mr. SAUNDERS on the part of the Entomological Society was desirous of exchanging its transactions against the Society's Journal, an arrangement the secretary as Editor said he should be proud to carry into effect.

Dr. McCLELLAND submitted the following note, with the skin of a mole from *Assam*.

"Mr. PEARSON in the interesting paper inserted in the last number of the Society's Journal at page 359 expresses a doubt as to the existence of the mole in India. I was favoured by Captain JENKINS of *Assam*, a few weeks since, with the skin of a small animal of which he observes 'I also send you the skin of a mole which I believe to be a variety here; it was obtained by Captain HANNAY

* The Madras journal for April just published contains Dr. Graham's reply to Dr. Wight, on this subject—and a note from the latter confirming the fact of *Hebradendron gambogioides* being a native of Ceylon, where it is found but not abundantly, in the forests. The tree is diœcious.—ED.



near *Jeypore*.' The skin unquestionably belonged to an animal closely allied in its habits to the mole, with a similar fur but of mouse grey color, and with a minute flat naked tail scarcely projecting above the fur, and having a row of stiff hairs on its edge.

"Unfortunately we have not the skull nor even the fore feet of this animal—two most essential parts, but the forms of the skin together with that of a single hind foot, the only one attached to it, seem to refer it to the genus *Chrysochloris* or that to which the *Cape of Good Hope* mole belongs as well as the golden mole. The hind foot of the *Assam* animal is naked and flat, bearing a near resemblance to the human hand, with long nails, hollow below, narrow, and slightly pointed at their extremities."

Dr. McCLELLAND made a further communication on the subject of two small fish from a hot spring at *Pooree*.

"I may notice another point of Zoological interest for which I am indebted to Dr. GOODEVE who has favoured me with two specimens of the fish found by Mr. CUMBERLAND to live in a hot spring at *Pooree*, the temperature of which is 112° Fahr. The subject was mentioned by Dr. GOODEVE at the last meeting of the Medical Society, but as we hear much more extraordinary things of fishes than this it excited but little interest. Our Secretary Mr. J. PRINSEP for instance found one in his pluviometer that must have descended from the clouds. HUMBOLDT and BONPLAND found fishes thrown up alive from the bottom of a volcano in the course of its explosions along with water and heated vapour only two degrees under the boiling point; had this observation been made on the top of *Chimborazo* the boiling point might have been as low as the temperature of the hot spring at *Pooree*, but GARRELL removes all uncertainty by stating the temperature to have been 210° Fahr. and it was stated at the Medical Society by Dr. O'Shaughnessy, on the authority of a writer in Blackwood, that fish live comfortably in the Geysers—the boiling springs of Iceland, whose waters we should recollect though only boiling at the surface, are supposed at greater depths to be sufficiently hot to dissolve flint and hold it in solution.

"On the other hand the sucking carp, a species said to be remarkably tenacious of life, has been found by Dr. RICHARDSON frozen in the ice of the northern seas, apparently dead, but when the ice is thawed the fish avails itself of its liberty as if nothing had happened to it. A similar fact has also been observed by Mr. JESSE with reference to the gold-fish, and in northern parts of Europe Mr. GARRELL informs us that perch and eels are conveniently transported in a frozen state from place to place without destroying life.

"With such an utter defiance of temperature as these facts prove the living principle in fishes to be capable of exercising, there is nothing wonderful in our finding fish in the hot spring at *Pooree*; there is this interest however in it, that the fish belongs to a new genus of which we have some 10 or 12 species in India all carnivorous, so that its presence implies the existence of other living things in the hot spring in addition to its own kind."

The Secretary ventured to add to the foregoing a circumstance recently under his own observation. The tank or reservoir connected with the mint steam engines is well stored with the *rui machli*. During the late hot season the temperature of this tank has risen to 104° or 105° Fahr. from the constant working of the engines; but this degree of heat seemed to incommode the fish considerably, for they actually threw themselves on the banks as if to avoid it and were caught by hand on the margin of the tank."

Lieut. N. VICARY, on his return from New South Wales, presented various objects for the museum, thus described in the curator's notice.

1. The skin of the *Echidna Histris*, (DESM.) or spiny Echidna, *Myrmecophaga aculeata*, SHAW, the aculeated ant-eater of Australia, since stuffed and mounted for the museum.

Being the only example of this singular animal at present in the museum it may be considered a valuable acquisition to the Society's cabinet.

2. Skin of a small *Platapus*, *Ornithorhynchus paradoxus*, (BLUM.) which has also been prepared and mounted. Of these animals there are now three good specimens in the museum all of the same species.

3. Detached bones of a kangaroo, *Kangurus labiatus*.

There being neither a stuffed specimen, or a skeleton of a kangaroo in the Society's collection it is to be regretted that the bones presented by Lieut VICA-AY, in belonging to a young animal and being defective in number, are unfit for articulation.

4. Portion of the stem of *Alsophila Australis*, the tree fern of the blue mountains, which bears a strong resemblance to the fossils depicted in Buckland.

5. Flower of *anthorrhæa hastilis*, the grass tree of the colonists.

6. *Cidaris* ———— ? a species of *Echinus*.

7. Birds. The nonpareil parrot, *platycorvus eximius*, (VIG.) Kingfisher, *Alcedo* ———— ? and white-headed Grosbeak, *Loxia leucocephala*, which owing to their injured state cannot be preserved.

The following were presented by Mr. EVANS the curator.

Upper jaw of a small fish.

A preparation showing the ring of bony plates surrounding the eye of the large horned owl of India. *Asio bubo*.

Preparation of the eye of the ringtailed eagle ;

Showing an analogous formation, only in a minor degree. These bony rings composed of a series of plates admit of a limited motion, by moving on each other and by which mechanical means these birds most probably have the power of regulating the convexity of the cornea so as to vary the extent or intensity of vision according to their habits and necessities.

Specimens of the following stuffed birds, were presented by Lieutenant MONTHIOW, Indian Navy ; *Perdix Francolinus*, LATH. Francoline Partridge. *Perdix Asiatica*, LATH. Asiatic Partridge, and *Coturnix Pintah*, (SYKES,) mountain quail of the Dukhun.

The scapulæ, ossa humeri and two vertebræ of a whale, (query) *Balæna Australis*, or *Cacholot Macrocephalus*.

Lieut. FRASER, Engineers, presented through Dr. McCLELLAND, a specimen of rock-salt found in digging a well at *Mhow*.

" Lieut. HODGSON of the artillery stationed at *Mhow*, when recently engaged in sinking a well in his compound at that station on a high spot of ground composed of two ordinary black soil of *Malwa*, found at a depth of $3\frac{1}{2}$ feet an insulated mass of rock-salt, the size of two fists, imbedded in trap rock which appears too much cracked and broken so as to render it easily separated with the pick ; mixed with this brecciated rock there is a considerable quantity of carbonate of soda."

Lieut. FRASER inquires " whether that mineral be usually found in detached masses, and whether there be a prospect of finding it in more important quantities at *Mhow* or the vicinity.

" Salt springs are common in volcanic countries such as *Mhow* would seem to be, and it is possible that the crystal may have been thus formed by infiltration of brine into the natural cells of the basalt ; but the salt lakes in the valleys along the northern base of the table-land of *Malwa*, render it probable that extensive deposits of the salt formation may exist in central India."

Colonel MACLEOD presented a fresh rolled fragment of lignite from the fort boring, depth $464\frac{1}{4}$ feet.

" It exactly resembled some of the *Cuttack* specimens, or burnt charcoal, on one surface. Since then a lump of decayed wood has been brought up, rounded on the edges as if rolled in a stream, but not in the least carbonized ; just such as is met with in the *Sundarban* alluvium."

Dr. McLEOD, Inspector General of H. M. Hospitals, forwarded specimens of the rocks found at *Simla*.

1. " Granite from the Choor mountain, 13,000 feet alt.

2, 3, 15, 16 ditto, lower down the same mountain.

4, 6, quartz ; 5, 7, mica ; 8, 9, 10, micaceous schist ; 11, iron stone melted by the natives ; 12, puddingstone ; 13, breccia from a stream ; 14, decomposed quartz ; 17, stalactite from *Masûri*."

Captain McLEOD, forwarded some bottles of water and minerals from a hot spring up the Palouk river (*Mergui*) lately visited by him.

" The springs are situated up the Palouk river, which takes its rise on the

western side of a high range of mountains, running along the western or right bank of the Tenasserim river. At its mouth, which is in about $13^{\circ} 9' N.$ Lat. and $98^{\circ} 43' E.$ Long. and about 50 miles from *Mergui*; it is about 700 feet, but narrows higher up towards the village of *Palouk* in $12^{\circ} 16' N.$ Lat. and $99^{\circ} 8' E.$ Long. Soon after passing the village it becomes in places very shallow, and a succession of rapids and falls are met. Having ascended as far as I could in a small canoe, which was dragged over rapids, I performed the latter part of the journey by land, in consequence of the river becoming too shallow and the rapids or falls getting stronger and steeper. In returning however I descended the stream the whole way on a small bamboo raft, and the highest fall I encountered was about $3\frac{1}{2}$ or 4 feet.

"The hills which from *Palouk* range along the sides of the river, are by no means high, but covered with thick jungle and high trees.

"There are two spots where the springs shew themselves, one immediately on the right bank of the river, (which is here about 100 feet wide,) with some in the river itself, and the other about two or three minutes walk to the northward inland. Over and around the former ones, a mound of circular stones (No. 1.) of various sizes, (the largest about four or five miles in diameter,) was caked together with hardened clay, bearing the appearance of stone. The whole of this mound had externally a blackish appearance, and in some places, small circular basins had been found by springs now dry.

"All the springs now discharging are close to the waters edge or in the water; they issue from under the rocks, through a sandy bottom. The orifices are very small, and not above two inches deep. The thermometer being dipped in the hottest rose to 196° Fahr. The water from these was put into the small bottle (No. 1.) Their height above the sea I estimate about two hundred feet.

"The second springs a little inland, are larger and deeper. They are situated in a small open space; there must be about thirty or forty bubbling up along a line of about fifty feet by twenty, the largest being at the northern extremity. I took the water from the two largest springs, one about three and a half feet deep and two feet in diameter, and the other about half the size. In both of these (from which the other two bottles of water were taken), the thermometer indicated a heat of 194° Fahr. The ground at the bottom is of a dark shining color; here and there resembling the color of brickdust. The trees and grass grow luxuriantly around, and in the open space the marks of hog, deer, &c. are seen; the natives say some of the animals come to enjoy a draught of the water.

"The springs are in about $13^{\circ} 20' N.$ Lat. and $90^{\circ} 19' E.$ Long. Though vapours rise from the springs no disagreeable smell pervaded the atmosphere, nor had the water a very disagreeable taste.

"There are other springs about ten or twelve miles in a N. N. W. direction from these, at a place called *Pé*. There is nothing in this neighbourhood that I am aware of, indicating volcanic agency. Some very lofty, abrupt and broken peaks of considerable height are seen to the N. E. but many miles distant. The other hills however are regular in their formations, &c. I visited these springs in November, 1836:—on that occasion I only took water from the last mentioned springs, not being able to get at the spring, as I did this time by means of bamboos formed into a small bridge; I was obliged to attach the thermometer to the end of a long rod by a piece of string, and thus dipped the thermometer into the spring. The instrument at the end of the stick swung about like a fish at the end of a line, I therefore concluded that the thermometer must have fallen several degrees before it reached my hands."

Professor O'SHAUGHNESSY noted a curious fact connected with the late whirlwind.

"One of the pupils of the Medical College had seen fall near *Dum-Dum* a large mass of what he considered to be hail, but finding that it did not melt he took it to the college and it proved to be a lump of pure salt. Dr. O'S. does not think from its appearance that it was manufactured salt, and if as suggested in a note published this month it was carried up from the *Baliaghat* salt works, it had evidently travelled northward against the wind."

Colonel STACY submitted for determination of its nature a fossil bone of a large animal fossilized with lime—also for inspection some beautiful drawings by his native artist of many sections of fossil teeth made under his directions.

Meteorological Register, kept at the Assay Office, Calcutta, for the Month of May, 1838.

Day of the Month.	Observations at 10 A. M.							Calculated Humidity.				Observations at 4 P. M.							Rain.		Temperature of water.		Wind.		Weather.		
	Old Stand. Barometer at 32°.	New Stand. Barometer reduced.	Thermometer in air.	Depression of wet-bulb.	Do. by Lee's Hygro.	Dew-point.	Hair Hygrometer.	Centesimal of vapour by wet-bulb.	Do. by hair Hygrom.	Ditto by dew-point.	New Stand. Barometer.	Thermometer in air.	Depression of wet-bulb.	Do. by Lee's Hygro.	Dew-point.	Hair Hygrometer.	Centesimal of vapour by wet-bulb.	Do. by hair Hygrom.	Ditto by dew-point.	On roof.	On ground.	River.	Well.	10 A. M.	4 P. M.	Forenoon.	Afternoon.
1	29.778	29.730	89.9	3.7	4.3	75.0	88	85	74	63	29.640	94.0	8.3	8.1	74.7	79	70	57	56	in.	in.	87.1	79.2	S. W.	S. W.	cumuli.	cloudy.
2	730	666	89.7	4.1	4.2	75.8	87	83	72	65	569	95.2	8.7	8.0	73.7	79	68	57	51			86.7	79.1	S. W.	S. W.	do	hazy.
3	662	628	89.8	4.3	5.0	74.5	87	82	72	62	547	94.3	6.7	6.9	74.5	83	75	65	54			87.6	79.7	S. e.	S. e.	do	clear.
4	668	637	87.3	2.7	3.4	75.6	91	88	80	68	581	91.5	5.4	5.2	74.4	86	80	70	58			84.7	79.0	S. o.	S. o.	cloudy.	cidly. nimbi.
5	730	703	88.4	3.9	4.0	73.5	88	84	74	63	605	84.5	3.7	2.8	73.5	89	83	76	71	0.29	0.31			S. e.	S. e.	clear.	do. rain.
6	770	733	86.7	3.5	3.8	73.0	90	85	78	65	621	93.6	10.5	7.2	71.0	76	62	52	50			86.2	79.0	S. o.	S. o.	cumuli.	clear.
7	740	702	87.5	5.9	6.2	70.8	82	76	63	59	571	93.1	10.1	8.5	69.6	75	63	51	47	0.73	0.77	86.0	79.3	S. o.	S. o.	do	thund.shwr.
8	692	656	86.9	3.8	4.7	73.2	85	84	68	63	559	94.1	13.8	12.2	61.0	61	52	33	33			86.3	79.1	S. W.	S. W.	do	clear.
9	702	665	89.9	3.9	3.9	74.8	86	85	70	62	565	94.9	11.8	10.4	65.7	71	58	45	39			87.1	80.6	S. W.	O. W.	cir. cum.	nimbi. thnd
10	688	657	88.9	2.3	2.9	78.2	90	90	78	73	541	87.2	4.5	12.3	64.0	63	82	35	48			86.8	80.7	S. o.	S. o.	clear.	fine.
11	638	599	93.7	8.6	8.9	71.4	74	69	49	49	533	97.7	11.9	11.2	63.4	67	60	40	36					S. e.	S. e.	hazy.	hazy.
12	668	617	91.1	8.2	6.1	75.6	84	68	66	61	555	98.3	10.6	10.0	72.0	73	64	48	44	0.70	0.71			S. E.	S. e.	fine.	fine.
13	723	658	89.8	2.8	3.4	80.0	90	87	78	74	562	96.0	7.0	7.0	75.0	80	75	59	52			86.4	79.3	S. E.	S. e.	scud.	haze.
14	729	691	87.7	3.0	3.6	76.0	88	88	74	70	632	92.1	4.6	4.0	77.4	86	82	70	63			86.7	79.1	S. E.	S. e.	overcast.	cid. threatg.
15	725	680	87.3	3.8	4.5	75.0	85	84	68	68	609	97.6	17.3	14.8	59.5	56	40	27	24			68.5	80.8	S. e.	S. e.	clear.	clear.
16	733	692	89.7	4.5	3.8	77.4	89	82	76	68	654	95.3	10.9	9.7	66.0	70	62	44	40			87.3	78.8	S. o.	S. o.	do	cid. threatg.
17	738	705	88.3	7.6	7.3	69.2	77	70	54	54	614	98.3	14.8	12.4	64.8	63	51	35	34			89.7	80.9	S. o.	S. o.	do	do. very hot
18	747	710	89.9	3.9	4.1	74.5	86	85	70	62	626	99.3	18.5	14.4	56.3	55	43	26	25					S. o.	S. o.	do	do
19	688	647	86.7	3.9	3.8	76.0	86	85	70	66	544	101.7	13.0	10.1	70.5	71	52	45	38					S. o.	S. o.	do	do
20	673	630	91.9	9.7	10.0	76.0	85	65	68	61	598	100.2	25.2	23.0	62.5	60	25	31	30					S. o.	S. o.	do	do
21	674	641	93.6	11.0	10.4	77.5	83	69	65	60	592	100.0	24.8	15.6	67.5	75	25	51	36					S. W.	S. w.	do	do
22	619	589	92.1	9.2	9.0	77.7	87	66	72	63	460	103.4	28.1	25.6	61.4	55	22	26	27					S. o.	S. e.	hazy.	very by. mt.
23	569	528	94.3	10.3	9.9	76.5	86	62	70	55	431	101.7	26.5	25.4	61.7	54	23	25	28					S. e.	S. e.	do. slight.	c clear.
24	610	571	93.0	10.7	10.7	74.6	85	61	68	55	532	99.3	15.8	15.5	72.0	78	40	36	43					S. e.	S. e.	clear.	do
25	704	658	93.0	10.6	10.7	76.0	85	61	68	59	562	97.1	13.9	13.6	72.0	89	53	74	45					S. W.	S. w.	do	cumuli.
26	705	670	91.7	9.6	9.3	75.5	87	65	72	60	552	97.1	13.5	13.1	69.0	81	53	61	41					S. e.	S. e.	cir. cum.	haze.
27	703	665	90.3	10.3	9.8	75.0	86	61	70	62	590	95.5	15.7	15.8	70.6	75	47	51	45	0.10	0.11	88.5	80.5	S. W.	S. W.	do	cum. stral.
28	704	632	91.9	11.7	12.2	73.5	87	57	72	54	584	97.4	13.0	14.3		76	55	52	51					S. e.	S. e.	do	cum. stral.
29	697	663	92.1	10.0	10.3	73.0	85	62	68	55	598	93.6	11.2	10.8	72.0	83	60	65	51					S. E.	S. E.	c. c. & c. str.	c. c. & c. str.
30	743	686	91.8	11.4	11.4	72.5	84	57	66	55	592	97.5	14.8	14.1	76.0	78	50	56	52					S. E.	S. e.	cumuli.	cir. cum.
31	660	618	91.6	10.5	10.3	73.5	85	60	68	57	535	96.1	13.0	12.7	72.0	80	55	59	47					S. W.	S. W.	cir. stral.	do
Mean.	29.696	29.656	90.3	6.8	7.1	74.8	85.8	73	70	61	29.574	96.0	13.1	12.1	68.6	73	55	49	43	1.82	1.90	87.5	79.9	S. W.	S. W.	hot and few squalls.	hot and few squalls.

Several meteors have been noticed this month, both here and in Cuttack, but unfortunately the particulars of date and position were not preserved.



JOURNAL

OF

THE ASIATIC SOCIETY.

No. 78.—June, 1838.

1.—*Second Report on the Examination and Restoration of the Mackenzie Manuscripts. By the Reverend WILLIAM TAYLOR.*

[Concluded from page 414.]

Manuscript Book, No. 5, Countermark 759.

Section 1.—*Account of the Zemindar of Emakalapuram, in the Dinidigul district, of the Coimbatore province.*

(Stated to be copied from an original palm-leaf account.)

During the rule of the rayer in Cal. yug. 4520 Sal. Sac. 1341, my ancestors were of the *Cámarar* tribe ; and CAMULACA NAYAKER lived at *Devanampatnam*, near *Cuddalore*, being head-man of the district. At that time the rayer had an unmanageable horse, which no one could govern till the aforesaid CAMULACA, going to the capital, taught the keepers how to control the animal ; and, himself mounting the horse rode out with it for three days together, in the most unfrequented places and brought it back before the rayer on the fourth day, perfectly quiet. The rayer was so well pleased, that he gave the head-man the title of the horse, adding other titles, and distinctive banners ; and relinquished the district at *Cuddalore* to him in free gift, therewith dismissing him. At the time when VISVANATHA NAYAKER was sent to take possession of the *Pandiya* kingdom, the aforesaid CAMULACA was ordered to accompany him, and afford aid. The household god of CAMULACA became an image at *Emakalapuram*, where he settled. He received orders from VISVANATHA NAYAKER to furnish a quota of troops, towards the charge and defence of the fort of *Madura*. Some disagreement occurring between KULASE'GARA and VISVANATHA, the latter ordered the *Emakalapuram* chief to go against the former, which he did ; and after much fighting the former laid an ambush, so that CAMULACA NAYAKER was shot, as he was advancing with his peo-

ple. VISVANATHA had the funeral rites performed. His son was ANANTAPA NAYAK; who, in consideration of the manner of his father's death, received additional distinctions, and some villages in free grant, from VISVANATHA NAYAKER. At the time when the seventy-two chiefs each had a bastion of the *Madura* fort confided to him, this chief was appointed to the seventh bastion. He died after a chieftainship of thirty years. CAMULACA NAYAKER, his son, succeeded and ruled thirty-five years; he fulfilled his appointed duties, but without any thing special occurring. His son was LAQUMAYA NAYAKER, and, as in the last case, died after a rule of seventeen years. ANANTAPA NAYAKER, his son, governed seventy-five years and died. CAMULACA NAYAKER, his son died after a rule of twenty-seven years.

His son LAGUMAYA NAYAKER,..... 33 years.

7. ANANTAPA NAYAKER, 25 „

8. CAMULACA NAYAKER, 65 „

9. LAQUMAYA NAYAKER, ... 30 „

Thus far there was a regular descent from father to son, ruling their own lands, without paying tax or tribute. ANANTAPA, the son of LAQUMAYA, ruled at the time when the *Mysore* ruler at *Seringapatam* conquered the *Dindigul* province; when a tribute was imposed of one hundred *huns*. ANANTAPA ruled twenty years. His son CAMULACA NAYAKER, in the time of HYDER SAHIB, had an additional tax of fifty imposed; paying annually one hundred and fifty *huns*; and ruled twenty-one years. His son was ANANTAPA NAYAK. In the time of MEER SAHIB, his Amil, named SYED SAHIB, doubled the tribute; making it in all 300 *huns*; I myself LAQUMAYA NAYAKER, who am his son, for some years had the lands without tribute. Subsequent to the rule of the Honorable Company over the *Dindigul* province Mr. Commissioner McLEOD fixed my tribute at four hundred and fifty *huns*. It was afterwards raised to one thousand six hundred and twenty *huns*, which was paid during eight years. Afterwards, in consequence of not paying the tribute, the Honorable Company assumed the district and my petition is that the Honorable Company will shew me favor and protect me.

Section 2.—Account of the zemindars of Dottiya fort.

(Copied from a palm-leaf account.)

At the time when the padshah came against the rayer, before the capital was taken, the rayer sent red garments out; with the message, that so many as were willing to leave their families should put on those garments, and prepare for war. My ancestor MACALA NAYAKER of the *Penjaivalla* tribe, with his people, assembled and, after defeating

the invaders, came to the rayer's presence. The rayer, being greatly pleased, honored him with various insignia of favor; and directed my ancestors to build a fort 30 miles due west of *Madura*: in consequence of which a mud fort named *Dottiya-cóttai* was formed. Two of the tribe were BOMMANA NAYAKER the elder, and BETTALU NAYAKER; the eldest governed for twelve years. The second in succession BETTALU NAYAKER cleared away some waste lands. But as he was very young, and the country was that of the *Kallar* caste, he did not find himself at ease there. At that time VIRA SEGARA CHOLAN having invaded the country of CHANDRA SEGARA PANDIYAN, the latter, being unable to resist, went to the rayer; who sent with him NAGAMA NAYAKER to reinstate him in his possessions. BETTALU NAYAKER accompanied the pandiyan to the rayer; expecting, if the pandiyan were restored, that his own district would be secured to himself. But in consequence of CHANDRA SEGARA having only five illegitimate sons, he made over his kingdom to VISVANATHA NAYAKER; and BETTALU NAYAKER derived no benefit from waiting on CHANDRA SEGARA. At a later period, when VISVANATHA NAYAKER, in conjunction with ARIYA NATHA MUTHALIAR, had fixed appointments to bastions of the fort, in reply to a petition my ancestors were confirmed in the possession of the *Dottiya* fort and lands. Subsequently, when the king went to fight against *Kayattattur* fort, BETTALU NAYAKER was appointed to guard the royal tent; for his service on which occasion, he received some acknowledgments. A tribute was fixed of one hundred *chacrams*. He ruled thirty-five years. His sons were, BOMMALU NAYAKER, the eldest, CHINDUMA NAYAKER the younger. BOMMALU was the third in succession, and ruled twenty-two years. The fourth in succession was BETTALU NAYAKER, who ruled thirty-eight years. His tribute was 153 *chacrams*; 5th, BOMMALU NAYAKER ruled 20 years, paid 150 *chacrams*; 6th, BETTALU NAYAKER, 27 years, paid 150 *chacrams*; 7th, MACALA NAYAKER, 26 years, paid 200 *chacrams*; 8th, CHINDUMA NAYAKER, 27 years, paid 200 *chacrams*; 9th, BETTALU NAYAKER. In his time RAMAPAIYAN general of FIRUMALA NAYAKER, being about to proceed against the *Sethupathi*, called for the said BETTALU NAYAKER, and gave him orders to construct, with his people, a bridge at the straits of *Pamban*; which bridge was built with great labour, so that the entire army passed over to the island of *Ramésvaram*, and, the *Sethupathi* being conquered, BETTALU NAYAKER received honorable notice for the great trouble which had fallen to his share. He ruled 50 years. •

The 10th, BOMMALU NAYAKER, younger brother of the preceding, ruled thirty years, paying 300 *chacrams* as tribute. His son MACALA NAYAKER, was called on to attend CHOKA NATHA NAYAKER in the war against VIJAYA RAGHAVA of *Tanjore*; and received a front wound in that war. He ruled 25 years, paying 300 *chacrams*. The 12th in succession was BETTALU NAYAKER, who ruled 24 years, paying 300 *chacrams*; 13th, BOMMALU NAYAKER ruled 27 years, paid 500 *chacrams*; 14th, BETTALU NAYAKER ruled 13 years, paid 500 *chacrams*.

This tribute was paid to MEER sahib.

15th, BETTALU NAYAKER 5*

16th, BOMMALU NAYAKER was his younger brother. In the time of SYED sahib he paid 700 *chacrams*. In the time of Commissioner McLEOD an additional hundred was imposed; in all 800 *chacrams*. In the time of Mr. WYNCH the same. In the time of Mr. HURDIS the same. After the measurement by survey the tribute was raised to one thousand two hundred and fifty-six *chacrams*. The country in consequence becoming ruined he sold his personal effects, the proceeds of which were paid into the court of the collector, Mr. GEORGE PARISH. He ruled 40 years. The 17th in succession, is myself CHINNALA NAYAKER, and paying my tribute into the treasury of the collector Mr. ROUS PETER, I continue to obey the orders of the Honorable Company.

Section 3.—Account of the zemindars of Tavasimadu, in the Dindigul district.

(Copied from a palm-leaf manuscript.)

Before our ancestors came to the possession of this *Pálliyam* (feudal estate) they were resident in the province of *Gooty*. In consequence of the Muhammadans demanding our women, we abandoned jewels and other property, and came to the *Pandiya* country in the south. Being impeded by a deep and rapid river, we applied to our gods, when a *punga** tree was caused to incline over the river, so as to enable us by its means to cross over to the southern side. Being followed by the Muhammadans to whom we had refused to give wives, the tree, before they came up, recovered its usual position, so that being unable to cross the river, they returned. The whole of the emigrating body proceeded till they came to a small hill, to the north-west of *Madura*; at the foot of which they took up their encampment. CHOTALA NAYAK the head-man, placed a light (in token of divine homage) and continued day and night in severe penance; directed to his tutelary god. The latter visibly appeared, and directed him, as the reward of his penance,

* *Caja galedupa*, RUMPHIUS. *Dalbergia arborea*, WILLD. *Kurrunja*, Sans. AINSLIE.—*Mat. Med. Ind.*

to clear the country around ; to take it in possession, and to build a town on the spot, where he had performed penance, to be called in commemoration of that penance, *Tavasu-medu* (or the hill of penance). Subsequently during the disagreement between NÁGAMA NAYAKER and CHANDRA SEGARA PANDIYAN, the former, while proceeding by way of *Dindigul* towards *Pyney* to visit the shrine at the latter place, was taken ill ; in consequence of which it occurred to him, that if he called the aforesaid penitential head-man, this person would be able to cure the disease. Being sent for, he came ; and, putting *Viputhi* (or sacred ashes) upon the patient, cured him. In consequence NÁGAMA NAYAKER gave him permission to clear away land, build a town, and call the place *Tavasu-madu*, therewith dismissing him. At a subsequent period when VISVANATHA NAYAKER and ARIYA NATHA MUTHALIAR went to fight against *Koyattattur*, they called CHOTALA NAYAK and he was appointed to guard the viceroy's tent. CHOTALA NAYAK fell in the battle. The second chief, son of the former, was named RAGHU RAMA CHOTALA NAYAK. He ruled 42 years. The third son of the last, and bearing the same name, had charge of one of the bastions of the fort of *Madura*, and ruled 49 years ; 4th, of the same name ruled 50 years ; 5th, same name, 2 years ; 6th, PONA SÁMI CHOTALA NAYAK, 10 years ; 7th, RAGHU RAMA CHOTALA NAYAK son of the last, was called upon to accompany RAMA PAIYAN in the war against the *Sethupathi*, during the time of TIRUMALA NAYAKER of *Madura* ; and on the return from that expedition, was dismissed with presents. He ruled 42 years. 8th, CHOTALA NAYAKER ruled 40 years ; 9th, RAGHU RAMA CHOTALA NAYAKA was called upon to guard the tent, and to accompany the expedition against *Tanjore* ; from which returning victorious he was dismissed with presents ; while obeying orders from *Madura* he ruled 45 years ; 10th, CHOTALA NAYAKER, 33 years ; 11th, RAGHU RAMA CHOTALA NAYAKER 30 years ; 12th, same name, 19 years.

The whole of the preceding twelve were sons in direct succession. With the mention of the name and rule of the twelfth, the writing abruptly concludes.

Section 4.—Account of the zemindars of PATTIYA PA NAYAKER, of Dindigul district.

Our ancestors were of the *Penchai* district. In Sal. Sac. 1357, Cal. yug. 4536. WALI sahib, the officer of the *Delhi* padshah, invaded the rayer's capital. VALLALA MAKI NAYAKER was summoned ; and going against the invaders, returned victorious ; on which account, the rayer being pleased with his services, gave various honorary distinctions and villages in the south. He fought with the *Vedars* and

Kallars of those districts; and put them to the edge of the sword. He ruled there 33 years. His son was named LAKAMAN NAYAKER, who ruled 42 years. VELLALA MAKI NAYAKER, 15 years. This same person went to *Madura*, and had an interview with CHANDRA SEGARA PANDIYAN, when his tribute was settled at one hundred *chacrams*. It is then again added that he ruled 19 years, but his son is most probably intended. His son was CAMA NAYAKEN. His son was YETTAMA NAYAKEN, who ruled 23 years. His son was PALLIYAPA NAYAKEN who paid 100 *chacrams*, and ruled 41 years. This chief built a mud fort, also a *Vaishnava* fane, and a porch to GANESA. His son was CANACULA NAYAKER, who built an aqueduct for the better irrigation of the lands of several villages, and ruled 38 years. His son was COTTAMA NAYAKER, who at the time when VISVANATHA NAYAKER, the son of COTTAMA NAGAMA NAYAKER, came to the government of *Madura*, went thither and had an interview with that viceroy; at which interview the yearly revenue was settled at 200 *chacrams*, and COTTAMA NAYAKER returning to *Allipuram* ruled 38 years. His son was PALLIYAPA NAYAKER. His neighbours, AMMIYAPA NAYAKER, and VALI KONDAMA NAYAKER, wrested from him two villages; the former took *Vechandiyur*, the other took *Chettiyampatti*, with its reservoirs of water. PALLIYAPA NAYAKER paid 200 *chacrams* as tribute, and ruled 41 years. His son was CHACALA NAYAKER. A famine arose, in consequence of which the whole tribe took refuge with the *Virupacshi Poligar*. He had before wrested from them some villages, and they pledged to him *Allinagaram* for sixty *culams* of millet, which they were subsequently disposed to repay, requesting that place to be restored to them; which request was refused; CHACALA NAYAKER ruled 21 years. His son was ANAVARA NAYAKER, who paid his tribute of 200 *chacrams*, and ruled 27 years. His son was BODI NAYAKER, who made several improvements for the better irrigation of the villages of his district. In the time of VENCATA rayer he went to an interview with that chief at *Dindigul*; and he was there required to pay 300 *chacrams* as tribute; he ruled 45 years. His son was BOMMALU NAYAKER, who paid the same tribute to the same place, and ruled 41 years. His son was CANCHI VARADA NAYAKER, who paid his tribute, and ruled 41 years. His son was CHACALA NAYAKER. MEER sahib then ruled at *Dindigul*, and raised the tribute to 700 *chacrams*. When SYED sahib ruled, he raised the tribute to one thousand *chacrams*. CHACALA NAYAKER ruled 39 years. His son PALLIYAPA NAYAKER succeeded, paid the same extent of tribute, and ruled 25 years. The *Dindigul* province having come under the govern-

ment of the Honorable Company, the aforesaid tribute of 1000 *chacrams* was paid during the collectorships of Messrs. McLROD, RANKIN, and WYNCH. In the time of Mr. HURDIS the same. "In the *Nala* year I paid 700, and being unable to pay the other 300 my district was assumed; and Mr. HURDIS protected me, by giving me an allowance of sixty rupees monthly." The lands were surveyed by measurement; and it would appear as if a committee investigated the subject in the time of Mr. PARISH, adjusting the tribute at the rate of 561 *chacrams*. The account is written by the grandson of the beforementioned PALLIYAPA NAYAKER, bearing the same name. He dates his accession in Fusly 1221; with the mention of which date the writing concludes.

Section 5.—Account of the zemindars of Succampatti, in the Dindigul province.

(Copied from a palm-leaf manuscript.)

The same origin from the north, the founder of the race served with VISVANATHA NAYAK against the Muhammadans, and was sent down to the *Pándiyan* country. One of the chiefs fell in the struggle against an illegitimate son of the *Pandiyan*. On this war there are some things in the document worth consulting. The war against the *Sethupathi*, and against *Tanjore* are also noticed. For the rest the minute details much resemble the preceding.

Section 6.—Account of the zemindar of Ammaiya Nayak palliyam, in Dindigul district.

This account is copied, it is stated, from records written on copper, and carefully preserved by the family. It indicates a like origin with the other preceding chiefs from the north, and has much minuteness of detail concerning the different chiefs, and some notice of the discovery of an image, and founding of a fane, whence the chief derived his title. For the rest the account does not contain the mention of new or commanding events.

Section 7.—Account of the race of COPAIYA NAYAK, zemindar in the Dindigul district.

The origin from the north; they were sent to the south to assist in collecting the rayer's tribute, they were established in the town named after COPAIYA NAYAK, by VISVANATHA NAYAKER, and had charge of one of the bastions of the *Madura* fort. Like the preceding they came under the *Mysore* government, after the *Mysore* conquest of *Dindigul* province. There is however nothing special added to the details of leading events before given.

Section 8.—Account of the race of CULAPA NAYAK, zemindar of Nila-cottai in the Dindigul district.

The account commences with the summons of the rayer, given by sending round red garments, to raise troops to resist the Muhammadans. The repulse of the first hostile manifestations of the Muhammadans induced the rayer to present the founder of this race with various honors and to send him down to the south. He represented that the country was so wild, and unsettled, that he wished to have it for ten years free of tribute. The assumption of the *Pandiyā* kingdom, the war against *Kayattatur*, where the five illegitimate sons of the Pandiyan were conquered, appear as before. The 13th chief, CULAPA NÁGAMA NAYAKER, was an author; and composed the moral work entitled *Viravidudáthu*, (said to have been printed by a native at *Madras*.) Conquest of *Dindigul* province by HYDER ALI mentioned. Nothing else very particular; except the assumption of the *Palliyam*.

Section 9.—Account of CARUPA TAMBIRAN, zemindar of Cottai Kádu ó-duccam, in the Dindigul province.

This *palliyam* (or feudal estate), had its origin at a somewhat later date than the preceding ones; and was founded by a *Tambiran*, or one of the class of ascetics. The account is very destitute of incident. It is illustrative of opinions, and manners.

Section 10.—Account of the race of BODI NAYAK, of the Dindigul province.

The account commences with the destruction of *Vijayanagara*, by the Muhammadans, when the ancestors of this race fled towards the south. The first of the race purchased his estate from an ascetic, who had before held it by a grant from one of the earlier *Pándiyā* kings. In the reference made to the former possessor there would appear to be some illustration of the hog-hunting, which figures in the *Madura St'hala purānam*, as attended with important consequences. Nothing very special appears in the subsequent history of the various chiefs, or possessors of the estate.

A petition to the Honorable Company to repair a certain *annicut* (or water-course) follows, of no permanent consequence.

There is a copy of an inscription commemorating a grant of land from one CONDAMA NAYAK to a Brahman. Also copy of another inscription commemorating a gift of land by APPAIYA NAYAKER, a poligar, to a female slave of a *Vaishnava* fane. These three last documents are not reckoned in the list of contents of the book; and seem to have been pasted in after the book had been bound up.

Section 11.—Account of PERIYA MUTTHU SAMIYA NAYAKER, of the Devaram palliyam, in the Dindigul district.

The Mahratta did not pay tribute to the padshah, when the latter directed the ancestor of this poligar to go against the *Mahratta*; and, as the doing so was attended with success, the padshah rewarded the chief with honors and distinctions. The padshah passing one day near the latter's residence, demanded one of the females of the tribe in marriage; threatening to take away the same person by force if refused. An evasive answer was given; and the account abruptly breaks off. The inference is that the tribe fled to the south, to get away from the Muhammadans, as mentioned (Section 3rd) in the account of a foregoing chief.

Section 12.—The local legend of the fane of Comba-palliya-patta, in the Coimbatore province.

A legendary account of a fane to which at first a *Sudra* was hierophant; but which acquiring celebrity, from some alleged cures of people who had been blind, obtained afterwards a Brahman as officiating ceremonialist. Except as illustrating native manners, and opinions, the section has no special value.

Section 13.—The local legend of the fane of RANGA NAYAKER, in the Devaram feudal estate.

A peasant struck against a stone, while going on his work, and fell; on which being angry he was going to break the same, by which means it was discovered to be an emblem of *VISHNU*; and, a fane being built over the stone, it became in some degree celebrated; but falling into decay, at the prayer of some devotee for rain, a form appeared saying, that if the shrine were honored as it used to be then there would be rain. Nothing further is added.

An account of Choli mali-alagar fane, in the Devaram feudal estate.

A boy, of the ordinary people, named CARUPEN, was frightened and chased by a spectre; which circumstance he narrated to the village people; who, recognizing the spectre to be an appearance of *ALAGAR* (*VISHNU*), came and saw the place, and afterwards built a fane in commemoration of that appearance.

Section 14.—Account of the fane of Kâlâtesvarer in Uttama-palliyam of the Dindigul district.

A person had been accustomed to go as far as *Calastri* on pilgrimage; but, one day a form appeared, and told him it was not needful to take



so much pains in going so far ; that underneath a tree, pointed out, there was a form of the same god, which could be there worshipped. A fane was built there ; which a trader afterwards enriched by a considerable donation, and it was enlarged and ornamented.

Section 15.—Account of the different fanes in the Uttamam-pálliyapet district.

It was anciently a teak forest, visited by the five *Pándavas*, and by them considered to be an excellent country ; whence the term *Uttamam* signifying “ excellence.” There follows some other matter, concerning *Nila-Candesvara* fane, so evidently fabulous as not to merit much attention.

Copy of an inscription on the fane of Callatésvarer in Uttama-palliyam.

It is dated in the reign of MANGAMÁL of *Madura* in the *Cali yuga* year 4794, and in Sal. Sac. 1415. (In the latter date there is an error, the figure of 4 must on the inscription itself be 6 ; as appears both by the known period of MANGAMÁL’s rule, and the date of the *Cali yuga* era which is correct ; we must by consequence read Sal. Sac. 1615.) It commemorates a gift of land, to the fane ; and is of no importance, as belonging to so recent a period.

Copy of an inscription on copperplate in the same fane.

Dated Sal. Sac. 1655 in the time of BANGARA TIRUMALA NAYAKER. It commemorates a gift of two pieces of land, to the said fane, in perpetuity ; and those who pervert the gift, from the fane, are threatened with the severest visitation for the crime.

The St’hala purana of Pulavinesvarer svámi.

The legend is very brief ; among other things it appears that, the images having been destroyed, the god appeared in a vision to a ruler, and said that next day an ark would float down the stream, in which would be found a female image, which must be consecrated, and placed in the shrine. The box came down the river, having a female image, with some citrons and other fruits ; and the consecration took place. The names of *Vira Pándiyan*, and of *Vicrama Pándiyan*, appear in the legend, but both names may be merely titular. No mention of any date occurs.

Memorandum of a gift of an *agraháram* (or Brahman almshouse) made by one named NARASAPAIYER. The place was called *Narasapa bhupála Samudram*. The recorded documents perished by fire.

*Legend of the Surab'hi river.*

In consequence of the penance of an ascetic, SIVA came to the wilderness, where the said ascetic resided; who, asking that a river might be caused to flow through that wilderness, SIVA directed *Surab'hi* (or *Cámadhenu*), the cow of the gods, to be metamorphosed into this river; which accordingly took place. Certain marvels occur there; and the beating of drums, and sound of other musical instruments, are heard there at midnight. As the river flows from a rock, so any thing which falls into it becomes petrified.

Legend of the village called Camban.

A man selling bracelets passed by an ant-hillock at this place, where a female stood, who asked him to affix a pair of bracelets; while doing so, two other arms appeared, on which two other bracelets were placed; and she directed him to go, and get paid by PARÁCRAMA PÁNDIYAN; who not only complied, but built a shrine over the spot, where the goddess had appeared. In later days a poligar built a town near the place; and, at a still later period, KOTHAI VERMA raja built a town, and a fort, in the neighbourhood.

Legend of a place, where a fair, or general market of commodities, used to be held, but long since disused. It is to the south of the last mentioned town called *Cambam*, and south of the river *Surab'hi*. The legend amounts to little, or nothing; but the situation, on the borders of the ancient *Pandiyá*, and *Chera*, countries, throws a feeble gleam of light on the extensive commerce which anciently took place between those countries; encouraged by the intercourse of European traders with the western coast.

Legend of Pashu-mali, or the Cow-mountain.

A cow-herd, not finding food for his cattle, drove them to the foot of this hill, and then ascending it, chose a cool station for rest: one cow strayed a long way from the herd, and at a forest-pool met a hungry tiger. The cow pleaded, that it wanted to go and suckle its calf, and, after the security of an oath that it would return, the tiger permitted it to go. The cow went for its calf, and met a snake by the way, to whom it told the tale; it then brought its calf, and the snake to the tiger, but the tiger, struck with such a display of veracity, refused the meal. The cow remonstrated, in vain. At length SIVA came, disguised as a Brahman, when the cow ran at him; but, evading, he disappeared; and returning with PARVATI, and the thirty-three crores of celestials, he gave beatitude to the cow, to its calf, and to the snake. The mountain acquired the name of *Pashu-mali*. (This inane legend is

either purely such, tasking credulity to the utmost ; or else it is a fable, couching some other circumstances under the veil of symbols, but if so there is no clue to the precise meaning.)

• *Copy of an Inscription on the fane of Kúdal Alogiya Perumâl, in the Dindigul district.*

Dated in S. S. 1591, *Collam* era 844 ; gift of land, by one named KULASEGARA PERUMAL ; with a strict injunction, that the gift be not perverted to any other use, than the service of the said fane.

End of Book, No. 5, C. M. 759.

General Remark. It was not my intention to take up the accounts of southern poligars, or local legends, at so early a period, but this book was found to be in so pitiable a plight, from the paleness of ink, and destruction effected by insects, that I gave it to a copyist, quite uncertain whether he could effect its restoration. This has however been accomplished ; the sense being generally preserved ; though with occasional breaks, of no great consequence.

The accounts of the southern poligars (of which the present may be accepted as a specimen, out of many more) are useful ; chiefly in giving a great variety of details, as to the subversion of the old *Pándiyan* dynasty, by the power of the rayer of *Vijayanogaram*, and the subsequent events of the northern rule at *Madura*.

The local legends, herein contained, exhibit a state of society such as we should not imagine, without such testimonials. The precise national character, at any given period, can however only be certainly known by such documents.

Manuscript Book, No. 21. Countermark 775.

Abridged account of the Vedas, Sastras, Puranas, various temples, and books of general literature.

1. The four *Vedas* and connected books. The *Mimansa*, and later *Védanta* books.

2. The *Upanishadas*, 32 in number ; summary explanations of their contents, including the designation of the four leading divisions of castes among the Hindus.

3. Law treatises on the *Manu-níti* books of eighteen authors enumerated, some of them of great antiquity.

4. The eighteen *Puranas*, the names specified ; distinguished into *Saiva*, and *Vaishnava* kinds.

A concise indication of the general nature of their contents.

5. The eighteen *Upa-puranas*, the names of them are given. The general nature of the contents is specified.

6. The *Bárátham*, the *Rámáyanam*, and some other books, contents explained; the matter of some of them is censured, as tending to bewilder mens' minds, and sink them into gross sensuality.

Notice of some books connected with the life of CRISHNA; the adventures of NALA, and other books, of the kind of poetical, or extravagant, romance.

7. The *Nátaga* works, or dramas.

8. The *Jambu* class of books, or abstracts of ancient and extensive compositions; the said epitomes having been made by CÁLI-DASA, and other poets or learned men; and being adapted to aid as a guide to an outline acquaintance with the originals.

9. The *Bána* class of books.

These are explained to be erotic treatises, teaching the art of fascinating the eye; according to the common fable of arrows.

10. *Upa-jánna*, books of adventures; these describe the great sufferings of certain personages, and the happiness which followed. They refer to HARISCHANDRA; NALA; CUSALA, son of RAMA; and SITA, wife of RAMA.

11. The *Nigandas*; seven are mentioned. They are of the dictionary kind, containing works with synonymes or explanations.

12. The *Rámáyanas*, or various *Tamil* versions of this poem; four are mentioned.

13. The *Báráthams*, or versions of the *Mahábhárata*; various other tales, fables, and the like kind of works.

14. Books peculiar to the *Vaishnava* system; a considerable list of these is given, thirty-eight in number; several of them have the word *mystery* added to the specific name. Accordingly to the explanation, they relate to the spiritual interpretation of the symbols employed by the sect, or to the esoteric doctrines, and much of the contents appertain to a future state of being.

15. The *Vedanta-sástras*.

The *Púrva mimansa* of JAIMINI: comments of BATTÁCHARYA, VEYÁSA, SANCARÁCHARYA, and some others.

16. The *Jyotisha* system, or astrological works.

These blend, what we term astronomy and astrology together; they are ascribed to eighteen rishis, whose names were probably attached to them by later writers. The amount of the whole is stated at four lacs of *slokas* or four hundred thousand poetical stanzas, in the *Grantha*, or *Prákrit*, of the south.

17. Epitomes of the foregoing systems.

18. The *Calijñāna* systems.

These relate chiefly to magic; with a few exceptions such as the *Bāratha sastra* relating to dancing, and such as relate to ceremonies. Others profess to teach such arts as flying in the air. Stupifying enemies, casting arrows, neutralizing the effects of fire, and a variety of similar matters; the total amounts to sixty-four kinds of such arts.

19. *S'halā puranas* of the *Chóla-desam*.

Forty-six of these are mentioned, relating to various places, within the twenty-four *Kādams*, or *yójanas* of the *Chóla* country; of which the boundaries are mentioned in the explanation; and which country is usually estimated at two hundred and forty square miles.

20. Names of fanes in the *Pándiya* country, eighteen of these are mentioned, each of them having its local *puranam*.

21. Local *puranam* of the hill country.

One only is specified.

22. Fanies in the *Chéra* country.

Fourteen are mentioned, each having its local legend of marvellous circumstances.

23. Fanies of the middle country.

Two are specified, with their *puranas*.

24. Fanies of the *Tonda* country.

Conjeveram and other fanies, to the number of thirty-seven, are enumerated, with their *puranas*.

25. Local *puranas* of the north country.

Ayodhya is the chief; and, connected with it, eight others are enumerated.

26. Miscellaneous *puranas*.

Eleven are mentioned; it being added, that there are many more.

27. Miscellaneous *Tamil* books.

A very long list of these books is given forming a useful index, in connexion with the brief explanation of each which is attached: of course the value of these works is not uniform. The particular section of dramas is here noticed, because the list contains several which are formed on events mentioned in the Christian scriptures, and which are supposed to be the productions of Roman Catholics. The list of medical books is somewhat full. To the mention of *Saiva* works something expressive of condemnation is usually added.

28. Grammatical works.

Thirteen of these are mentioned; of which in particular the *Nannùl*, *Tólcápiam*, and *Tónnùl* are well known.

29. Another list of astrological works.

The former list was of *Grant'ha* books; this of works in Tamil. Twenty-one are specified.

30. Miscellaneous arts, mechanics, building, &c.

Art of constructing forts, houses, fanes, of settling a village, navigation, and a variety of other similar things; enumerated as taught in thirty-six works, the names of which are given.

31. Local *puranas* of *Saiva* fanes. Sixty-three of these are specified; they are to the north of the *Cáveri*.

32. Fanies on the south bank of the *Cáveri* river.

One hundred and twenty-seven are enumerated, each having its *St'hala puranam*, of which, in the brief explanation, some mention of the origin is given; but without specification as to each particular legend.

33. *St'hala puránams* of the *Pandiya* country. Fourteen of these are mentioned.

34. Hill country.—One *puranam*.

35. *Cóngá nád*, local legends.—Seven are enumerated.

36. The fanies in the middle country. Twenty-two, with each one its legend, are enumerated; the productions of APPAR, SUNTARER and MÁNICAVÁSACAR.

37. The legends of fanies in the *Tónða* country: thirty-two are enumerated.

38. *Irza nád*, local legends.

By *Irza nád* here seems to be meant *Ceylon*, as the *puránam* is said to describe the *Candi desa*, surrounded by the sea.

39. Local legends of the north country.

Five are mentioned, *Kailasa* being included.

40. Names of *St'hala puranas* of the *Tuluva* country.

Gokernam is alone mentioned.

The total of *Saiva* fanies, and legends, is here stated to be two hundred and seventy-four.

41. The *Ágama sástras*.

The 28 *Saiva ágamas*; the names are given; but, though a general indication of the subjects is added, yet for fuller information a reference is made to brahmans versed in those books.

42. Summary or recapitulation.

The contents of this summary form a rather interesting synopsis of the various religious systems and some of their peculiarities, within the extensive country usually denominated India.

43. Total of the books before mentioned.

A few further remarks on the distinctive classification of the various books contained in the preceding enumeration.

Observation. The foregoing is a sort of *catalogue raisonnée*, although not in logical method. The preparation of it must have demanded considerable pains and care. I imagine that several persons must have been engaged in its arrangement. The language is neat and correct, wherever there is detail or explanation. Altogether it seems to be a valuable document for occasional reference. It was written on country paper, completely eaten through by termites, causing distinct perforations; so as to leave some words irrecoverable or doubtful. It has however been restored with sufficient, and satisfactory, accuracy. A full translation might be desirable, as being adapted to present the learned in Europe, or elsewhere, with a more complete view of the precise nature of native literature in the *Tamil* country, than could elsewhere be obtained; and certainly, such as no European could prepare.

Manuscript Book, No. 16. Countermark (not legible.)

Section 1.—A Malayalam book, containing an account of Kerala désam, translated into Tamil.

This book is the *Kerala Utpatti* translated, as noted at the end of the document, from the *Maliyalam* MS. of the late Mr. ELLIS. On comparison with the copy of the original *Kerala Utpatti*, in this collection, it was found that the translation was begun, not at the commencement, but farther on; the omitted portion being appended at the close. The translation also differs, a little in a few places, from the original; intimating some small differences in the two copies of the original. The book (No. 16,) containing this translation, being in a greatly injured state, arising, not as usual from insects, but from having seemingly been exposed to damage from sea water, it claimed attention, if from this cause alone. In consequence the whole has been re-copied; and at the same time the proper order of the translation restored.

Section 2.—A copy from an original manuscript in the possession of the Lady of Cannanore in the Malayala country.

It is (improperly) styled the *Kerala Ulpatti*.

Subsequent to a certain flood, and in the *Cali yuga* era 3491, the *Kerala raja* was crowned, at twenty-five years of age; and he ruled sixty-three years. A list of fifteen kings, and the period of each one's rule is given. A prophecy of an astrologer is then introduced, intimating that evil days to the *Kerala* country would come; foreigners would rule; the king would turn Muhammadan; and the country adopt that religion. The birth of the child, through whom these changes were to happen is then particularly adverted to, being the

CHERUMAN PERUMAL, who went to *Mecca*. He was 40 years old when he went away; and his instructions, to be observed during his absence, are stated. He died on the return; only his companion reached *Kerala*, who turned the family of CHERUMAN PERUMAL to the Muhammadan faith; and styled the son of the late king, Sultan MUHAMMAD ALI. This was in Hegira 64. A list of descendants follows with Muhammadan names, sixteen in number, and then two female rulers. Certain *feringhis* (foreigners) came in the year 359 (Hegira supposed), and fought with the Muhammadans, in the *Maldivé* islands, turning some of the people to the foreign religion; in consequence of which, aid was sought by the Muhammadans; the leading men among whom came to *Cannanore* in a dhoney, and an agreement being ratified, and recorded on copper-plates, aid was sent; the foreigners were extirpated, and the power restored to the Muhammadans. They were subject to the *Cannanore* rulers; but one or two among the island chiefs assumed independence, leading to wars and interventions. This notice of the *Maldives* is introduced as belonging to the time of ISAR BOKHAR in the year 455. The list of kings, down to the second of the two female sovereigns, was before given.

Remark.—This is the most plain, matter of fact, document regarding the *Malayalam* country which I have as yet met with. The appended statement concerning the *Maldives* is exceedingly curious. It seems to me that the whole document, which is but brief, claims full translation; as offering matter proper to be compared with other documents, concerning *Malayalam*, whereby general results may be deduced.

B. MALAYALAM.

Book No. 3. Countermark 896.

Section 1.—Chronological notice of Malayalam, containing the dates of CRISHNA, of the Pandavas, and of CHERUMAN PERUMAL.

CRISHNA was incarnate and flourished on earth for 107 years. He lived during 94 years of the close of the *Dwápara yuga*, the remainder in the *Cali yuga*, and was contemporary with some other connected persons, such as DHERMA RAJA, and ARJUNA: about the same time was the era of the great war. Various dates are given connected with the close of the *Dwápara*, and beginning of the *Cali yuga*. In the distress which followed the great war, a brahman came to CRISHNA and ARJUNA, and complained of the loss of his nine children. CRISHNA was silent, but ARJUNA, on learning that the brahman's wife was preg-

nant, guaranteed the life of the child, even if necessary by himself entering the fire, as a sacrifice to YAMA, to save the life of the child. CRISHNA rebuked ARJUNA for so rash a promise, and took him to *Vaicant'ha*, where the nine children of the brahman were found to be comfortably seated on the lap of LACSHMI. They were brought back to earth, on a celestial car; and the place where this descended, called *Tiruponutara* (near to *Cochin*) was afterwards set apart as a holy place, in the fifty-first day of the *Cali yuga*. CHRISHNA died in the eleventh year of the *Cali yuga*; D'HERMA RÁJA died also in that year; with a difference between the two periods of only 25 days. In the year 148 *Padma nába svámi* was established. (This is the image worshipped in the capital of *Travancore*.) Subsequently in the year 3444 CHERUMAL PERUMAL flourished at *Tiruvangi-culam* (A. D. 342). He distributed the country under various chiefs, and gave the official emblems of office. He died in 3508 (A. D. 406). The arrival of a foreigner at *Collam* (*Quilon*) is noted in the 425th year of the *Collam* era (A. D. 1249). *Tirumala dever svami*, was established at *Cochin* in C. E. 469. In C. E. 971 (A. D. 1795), the *Vetta raja* was killed by foreigners, the *Landa-para*, (apparently designating the English.)

Remark.—This short paper seems to merit a full translation.

Section 2.—Account of the modes of hunting in the Malayala country.

There are three modes, one that of *Arjuna*, one that of *Ayyapen*, one that of *Cáttala* (or foresters). The various descriptions of people requisite to hunting specified. Certain hunting phrases explained, and terms which, as signals, designate the nature of the animal to be pursued, and the number. Six other kinds of hunting are afterwards specified. Mythology, and a visit to heaven to fetch down four images thence, mingled with the other matter.

Remark.—To some this section would be curious, and interesting; it is however of no further use than to aid in describing manners and customs.

Section 3.—Account of agriculture in Kerala desam.

Invocations to RAMA and GANESA. The people of the land addressing PARASU RAMA stated that, though the land was fertile, yet that they knew not how to cultivate it. He in consequence is represented as giving them instructions how to proceed. The first part relates to preparation of the ground, care of oxen, and qualifications of the cultivator, who must not eat flesh, nor use intoxicating liquors, nor allow himself indulgence in sleep; with various other details. The second part is put into the mouth of a *rishi*, as deputed by PARASU RAMA.

It relates to choice of seed, and propitious time for sowing, in well ploughed ground, by oxen well fed, near to places where there are many inhabitants and where water can be obtained, as without water the best labours will be fruitless. Other connected details.

The third part relates to manure by decayed skins, ashes, dung and the like. The rainy season when water descends in torrents from the mountains, to be attended to, and the streams collected into reservoirs. The planting and cultivation of rice. The planting of cocoanut trees, areca, palms, pepper, vines, and other trees, as productive of great advantages. These, and similar matters, are given in detail.

The fourth part refers to the following topics. Times of beginning agricultural labours, on reference to astrological configurations. Time of harvest; rules as to the choice of horses, bullocks, and other cattle, in the purchasing of them, and modes of managing or taking care of them so as to become most useful for agricultural purposes.

The four parts are in poetical language. They form a kind of brief georgics; not well capable of being abstracted. This paper on agriculture in full, might be interesting to the curious; and would be requisite in any general description of the *Malayala* country.

Section 4.—Regulations, (or laws of the Kerala-desa.)

Discrimination between the person of integrity, and one devoid of truth. Qualifications for good government, and for exercising the offices of a statesman. The duty of a king to protect the four classes of the people or the brahmans, military, merchants, and cultivators.

Local customs, and subdivisions of people. One who abuses a brahman is to have his tongue cut out. The distance to be observed by a *Sudra* in approaching higher classes; different classes of *Sudras* having different measures of distance assigned to them; rules of debtors, loans and interest: modes of recovery in case of dishonesty. Recommendation not to go to law; but to refer the case to brahmans or other special arbitrators.

Laws of marriage. A brahman may marry four wives, and of each of the inferior classes in order, without crime. Law of bonds for debt, which hold good for only twelve years; and after that period must be renewed in order to be valid. Laws for regulating the forming of lands, and settling disputes which may arise thereupon, which subject closes the document.

Remark.—This paper seems to be of some importance, towards any just explanation of the great peculiarities that obtain in the *Malayala* country.

Section 5.—Original account of Kerala desa.

This is the *Kerala Ulpatti* in the *Malayala* language, before abstracted; see first report Art. C. and restored MSS. vol. 1. C.

Section 6.—Biographical notice of SANCARACHÁRYA.

This notice is written in the *Malayala* character, and in the Sanskrit language.

It contains an account of the birth, education, and subsequent proceedings of SANCARACHÁRYA, the great disputant; the opponent of RAMANUJA; and founder of the *Adwita* brahmans; whose leading tenet is that the deity and the human soul are not two things, but one and the same. This account is written in a series of Sanskrit *slócas*, or stanzas. There are other documents in this collection, concerning this polemical champion, better fitted for abstracting than inflated poetry. This paper has received attention in a few places, where the great paleness of the writing indicated the need of restoration. All the remainder is in a very good state of preservation.

Section 7.—Memorandum of Maliyalam books.

This is a brief list of books illustrating the history or manners of the *Malayalam* country, with an indication as to the persons in whose hands they may be found, one of the works referred to, is contained in this collection, in a Tamil translation, being the document from *Cannanore*, noted at the close of the foregoing Tamil manuscripts. There is also mention of the various rajas, or chiefs, in *Malayalam* at the time when the document was written.

Section 8.—Regulations of the Malayala country, relating to laws and manners.

This section is headed *Vivahára Samudra*, and is a Sanskrit version, in *Malayala* characters, of the same general subjects as those treated of in section 4. That section is in plain and ordinary language; but this is in verse, and differs a little from the other; but in so far as rules or laws are concerned, not to any material degree. Each *slóca* has an interlined Tamil translation; apparently made with a view of aiding the late Mr. ELLIS in his inquiries, since the document bears a note, that a copy of it was transmitted to him. The document has been restored, and may form a useful record for the sake of reference.

Section 9.—Account of the tribe of Mápalamar, at Panniyur village, in Malayalam.

Answer to an inquiry by the collector in 1812, concerning the origin of the Muhammadans in *Malayalam*.



The writer, JAIN UDDIN MAHUD, in reply states, that in the time of CHERUMAN PERUMAL a ship came from another country in which were Jews and Nazarenes, (Christians,) together with their families, who were permitted to settle; that a second ship came from Arabia, bringing Muhammadans, among whom was a sheikh, and that CHERUMAN PERUMAL inquired from him much concerning the religion and customs of the Muhammadans; that CHERUMAN PERUMAL became a Mussalman, and after making over his dominions to his relatives and others, left the country; that a ship being provided, he went with the sheikh by sea, the ship touching at various places; and, at length, at *Mecca*. It is added that the king, residing there some time, studied various books; and then came back, bringing with him several teachers. His health was not good; and he in consequence charged those to whom he had delivered over his power to receive and propagate the Muhammadan religion. After his death the Muhammadan system was disseminated in some places, and mosques were built.

Answer to the question, what are the peculiar manners and customs of the same people as now naturalized in the country.

The reply adverts to the cultivation of pepper, and trade in that article, originally carried on by this people. Three *feringhi* ships came to *Calicut* for the purpose of trading. The *feringhis* began to form plantations, and to monopolize the pepper trade, demanding a recognition of the supremacy of their flag, and allowing no vessels to trade, except such as carried a license from themselves. Under these circumstances application was made to the Sultan of *Roum* (*Constantinople*?) in consequence of which three Arab vessels armed, were despatched. Disputes and fighting with the *feringhi* people followed; the result of which was that the *Mápalas* had greater facilities for commerce than for a time had been allowed them.

In Hegira 904, (A. D. 1489-10,) a great man of their tribe came from Arabia; and being on good terms with the *Calicut* rája, he requested and obtained leave to build additional mosques in the country. These buildings were erected, and the people, together with their religion, flourished.

At a later period the padshah took the country, and distinguished these people, as being Muhammadan, with favors and privileges. But from the time when the English acquired power in the country, their privileges had not continued, and they were consequently aggrieved.

Connected with *Ponáni-nagara*, there are sixteen mosques; for the maintenance of lights and other matters in which the sirkar allows nothing.

The writer closes with some brief mention of his ancestors and himself, from which it appears that they and he had been hereditary chiefs of the *Mápalas*.

Section 10.—Account from Yogyar (or religious ascetics), at the village of Alipudumbu, in Malayalam.

The ascetics of the said village address Mr. BABER, who had directed certain queries to them, and after briefly adverting to the formation of the country, the location of brahmans in sixty-four villages, the choice of a king, and privileges of the *Nambúri* brahmans, they proceed to state, in answer to an inquiry, as to ancient books, that the *Kerala Ulpatti* exists in the common language, and that a copy of the work in Sanskrit may be found at *Codangnur*, (*Cranganore?*) In reply to another inquiry they state, that there are no inscriptions on stone remaining; to another reply as to events subsequent to PARASU RAMA, they state that PARASU RAMA formed the country and located therein the brahmans, in sixty-four villages, charging them with certain duties and ceremonies; that these brahmans introduced CHERUMAN PERUMAL as king; that CHERUMAN PERUMAL appointed other chiefs, and subordinate divisions of government. They further state, that the *Malayalam* country properly extends from *Gokernam* in the north, to *Canya Cumari* (or *Cape Comorin*) in the south; and they advert to the religious foundations, and different images worshipped within the boundaries of the country. (The whole of the reply is very concise.)

There follow a few Sanskrit *slocas* (stanzas) in the *Malayalam* character, supplied by the chief of the beforementioned ascetics, and simply confirmatory of the brief account given: it is not stated from what book or record the stanzas were obtained.

Section 11.—Account of the Cottai yatta, chief of the Mápala caste, in Malayalam.

(This title in the index of the original does not well agree with the contents.)

Certain persons, whose names are given in reply to certain queries from the cutcherry made in July, 1806, wrote to this effect.

There are no stone or copper inscriptions in the country concerning ancient kings, they had learnt from their forefathers, that in the district of *Paracu-mitil* (the *Wynaad* country), to which their answer refers, of old, there were no other inhabitants than *Verdars* (wild hunters), under rulers termed *Verda rája*. In those days a *Cumbala rája*, proceeding from the north on a pilgrimage to a shrine named *Tirunelli*, had to pass through the *Wynaad* country, and was taken by

the people. Being carried before the *Verdar* rája he stated his rank and object. The *Verdar* rája told the foreigner that he must marry one of the daughters of the kingly tribe here, or else he would not be suffered to depart. The stranger objected that he himself was of the *Cshetriya* caste, and could not marry into the *Verdar* tribe ; but notwithstanding if the latter rája would consent to the entire ceremonial being performed according to the *Cshetriya* rites, that then he would agree to the marriage. The *Verdar* rája consented, and the other then directed that himself and intended bride should be kept in separate rooms up to a certain propitious day specified ; that meantime a large pandal (or booth) must be erected and lined entirely with silks and other costly materials, and the whole place must be filled with the fruits of the *nelli* (*Emblic myrobolan*) *Phyllanthus emblica*.—PINN. and *táni* (*Terminalia bilirica*.—ROXB.)

The *Verdar* rája was also to cause all the people, bearing arms in his country, to assemble by that time in a certain fort. To these instructions the *Verdar* rája consented. The *Cumbala* rája had two companions, one a *Jadadhari*, (or ascetic with matted hair,) the other a *Sudra Vellazhan* ; by the instrumentality of these persons he wrote to the king of the *Curumba* country, and to the *Cotta* rája, mentioning the precise time fixed, and bidding them come just then with all the forces they could command, and to enter the fort at the giving of a certain signal by sound of trumpet. At the time of the marriage ceremonies, musicians were appointed, the *Jadadhari* being their leader, who gave the projected signal ; when the *Curumba* and *Cotta* chiefs entered the fort with their troops ; by whom the *Verdar* rája and the greater portion of his people were slain : a few escaped. On coming to the place where the *Cumbala* rája was confined, he told them who he was and came out to them. The other chiefs then asked him as to the future government of the country thus acquired. He replied, that his own country was too distant to admit of his having any thing to do with this country ; and that it was sufficient to be saved from the disgraceful marriage that had been intended. The other two chiefs then gave him presents and complimentary honors ; and seeing him well attended, sent him away to his own country. The *Jadadhari* received a district of land to rule over. The before intended bride was given in marriage to one of the *Nambiya* caste, who was entrusted with the government, under the *Curumba* and *Cotta* chiefs. These next consulted how they should divide the country ; so as to avoid disputes. They agreed to set out in different directions, and to make the spot, where they should meet the boundary. This plan does not seem to have answered ; and the *Cotta*

rāja desired the *Curumba* chief to take the whole country ; and should his posterity fail, then it should come to the *Cotta* chief, or to his posterity, and so on alternately. The *Curumba* chief obtained the power.

The aforesaid *Jadadhari* had a daughter, who married the *Cotta* chief, or his descendant, and transferred her hereditary possession with herself. Subsequently the *Cotta* and *Curumba* chiefs were at war with each other ; a state of things which was put an end to, by the country coming under the rule of the East India Company.

The foregoing account is attested by the signature of fourteen individuals, as being that which they had received from their forefathers, by tradition.

Remarks.—This document to say the least is curious. The *Verdar* chief, the *Hindu* rāja, and the *Curumba* chief, seem to have been of distinct races of people. The *Cotta* chief is understood to have been a *Hindu*. The abstract above given is rather full ; but the original document being copied and embodied in the second volume of restored manuscripts, can at any time be consulted for the purpose of full translation if considered to be desirable.

Section 12.—Account of the tribe of Fiyare-jati in the Malayala country.

A legendary account of the origin of the tribe from seven females, descended from the world of the gods ; by whom *SIVA*, assuming, the form of *AGNESVARA*, had seven sons. These seven sons were fixed by *PARASU RAMA*, in the land as heads of tribes. The names of the tribes are given. Their occupation is to procure the sap of the palm tree, and deal in the fermented, or distilled liquor. One of the tribes descended from one of the seven, named *CÁMÁIAN*, having received an insult from a *Sudra* man, emigrated with his clan to the *Irza* country ; whence *CHERUMAN PERUMAL* sent to recal them, and allowed them to revenge the insult by retaliation. They subsequently resided in the country. They know of no stone, or copperplate inscription among them ; but such as exist at *Travancore*.

Section 13.—Account of Parakun Mitil.

Brief notice of the arrival and settlement of a tribe of *Muhammadians* in the neighbourhood of *Calicut* ; their wars with some neighbouring chiefs ; and the privileges and immunities which were granted to them.

Section 14.—Account of MANIKYA CHENDU, a trader, a Jaina inhabitant of Calicut.

The statement is written by MANIKYA, who derives his ancestry from *Gujerat* where his forefathers were traders, and of the *Jaina* religion. The account is very brief.

Section 15.—Account of Musata, chief Inhabitant of Mangatambalam, a village in the Malayala country.

A reply to questions the same as proposed to other classes of people. They have no inscriptions. PARASU RÁMA formed the country into sixty-four districts; but did not establish any images or fanes. These were afterwards formed by CHERUMAN PERUMAL, and the brahmans. In *Tuluva* there were 32 village districts, and 32 in *Malayalam* proper. The people of this village came originally from *Rama Natha Kara*. PARASU RÁMA, when he brought them hither, promised to them protection, whenever they should think of him; and then went away. They wished to try his veracity, and called him without necessity; on which he testified great anger, and, saying he would not on any account come among them again, disappeared. Legend of the origin of a fane at *Muriyur*, founded on the circumstance of a stone giving out blood, when used as a whetstone. Some particulars are given of the extent and proceeds of the land possessed by the writer, named MUSATA, a chief man and belonging to one of the six subdivisions of the *Nambúri* brahmans.

Section 16.—Account of Panniyur village in the Cuta-nád district.

No inscriptions: a reference to the location of brahmans by PARASU RÁMA at *Ráma nad* (said to be near *Calicut*, or distant from it about 8 miles) and to local arrangements made. In reference to an inquiry as to some disabilities to which the brahmans of this village are liable, the reply traces up the occasion to an *Agñihotra*, or kind of sacrifice, at which a king of *Calicut* named SAMANDA refused to allow these brahmans to assist; and he died without offspring, in consequence of the anger of brahmans, which he thereby incurred. There are some few other connected details. The dates of a particular sacrifice; of the establishment of an idol named *Varaha svami*, and of the ascendancy of the Muhammadans, are given; but with some added expression of uncertainty. In reply to another inquiry, as to the cause of the aforesaid king's rejection of the brahmans, an answer is given, deducing it from their unwillingness to give up ancient rights by concessions to the rája of *Calicut*. The ascendancy of the Bauddhas is noted; concerning whom a council of brahmans was held; and a *Jangama rishi's* advice

was followed. By doing homage to VARAHA SVAMI according to the *Jangama* rites, they succeeded in getting rid of their rivals and adversaries. CHOLA PERUMAL is mentioned as participating in the affair; and he was killed in consequence by a brahman, named KOKÁTTA KÁRANAVA PÁDA, who for some short time afterwards, took on him the management of the government: possessing an ascendancy over all other rulers of *Malayalam*; an inquiry as to the time of arrival of a *Numburi* brahman, referred to in the account of that feud, and as to the time of the Ganga coming to *Malayalam*, is not answered with certainty; but it appears, that when the sacred water came, a dispute arose between the *Calicut* rája and the *Vella'tta* rája as to which should first bathe in it, and this dispute led to fighting, in which several of their people, on both sides fell. Inquiry as to the legend of the fane at *Panniyur*. The answer refers to PARASU RÁMA and his calling the brahmans from *Hai-cshetriyam*, to come to *Malayalam*; which they refused to do, unless in that country as well as in the one where they resided there should be a *Varaha svami*, and a sacred *Ganga*. In consequence PARASU RÁMA performed penance, and effected substitutes for both things desired; whereupon the brahmans came, settling at *Chovur* and *Panniyur*; between whom afterwards disputes, and fighting arose. In later days the *Vaishnava* brahmans reside at *Panniyur* and the *Saiva* brahmans at *Chovur*, being at enmity with each other. An inquiry as to the origin of the celebration of the coming of the *Ganges* once in twelve years into the tank at *Panniyur*, is not met by a direct answer; but reference is made to the rejection of an outcast man; who had presumed to approach at the time of the *Ganges* water coming to the fane. In reply to another question some discrimination is made between two subdivisions or classes of brahmans at *Panniyur*. They do not know the cause why a particular *Tambirán*, or ascetic, acquired celebrity.

The signatures of six *Namburi* brahmans are affixed to the document in attestation of its veracity.

Section 17.—Account of Savaccudu ayirrád in the district of Hoballi.

No inscriptions. Replies to inquiries (possessing a close similarity to the queries transmitted by Mr. BABER to other places), do not appear to offer any thing specially interesting. The account, sent in, is attested by the signature of three persons of the *Sudra* class.

Section 18.—Account of ancient matters relative to the Curumba nad.

Reference to the formation of the country by PARASU RÁMA and the introduction of the brahmans. These afterwards invited a king from

the *Pandiyā* race, who was crowned on the summit of the highest mountain in the country. Subsequent to the rule of seventeen kings, each ruling twelve years, *CHERUMAN PERUMAL* ruled as the eighteenth, and did so for thirty-six years. He divided the country among several persons, one of whom was the *Curumba rāja*, who governed thirty-six *kadams*, (or *yojanas*.) The race failed, and an adopted son was made chief. Bounds of the district stated. At a later period being troubled by the Muhammadans, the people emigrated from the district. The English rule was greatly welcomed.

Section 19.—Account of the tribe of Caniyara Pannikar.

In reply to an inquiry concerning their tribe they state; that their ancestor was a brahman and give a legend of mythological kind, to account for the degradation of his posterity: astrological matters are mixed up with the legend.

General Remarks. The contents of this book, of so very varied value, have had a note in passing. From the seventh section to the end the documents are loose papers, tacked into the book and written, for the greater part, on so fragile a material as China paper. It was therefore judged suitable to re-copy them in a more permanent manner. Some of the documents are not without value. They are the results of queries circulated by Mr. *BABER*, perhaps at the suggestion of Colonel *MACKENZIE*, as is rendered very probable, among other reasons, by the first inquiry always being respecting inscriptions; and it would appear that, in *Malayalam*, there must be a greater paucity of inscriptions, than in other parts of India.

Professor *WILSON* has entered this book *Des. Catal.* vol. 2, page xxi, Art. 3, giving only a transcript of the English headings of sections prefixed to the book. In Section 6, the word “originally” is not in the said headings, and its insertion in the catalogue conveys an error. The entry is “History of *Sankarācharya* composed originally in the *Sanskrit* language.” The document is still in the *Sanskrit* language, though written in the *Palayalam* character.

C. TELUGU.

Palm-leaf Manuscripts.

- 1.—*Cali yuga Rāja charitra or account of kings of the Cali yuga*, No. 131, Countermark 330.

This manuscript reckons, at the commencement, by the era of *Yudisthira*: the whole of which era is stated to include three thousand and forty-four (3044) years. In this period the following kings reigned.

	Years.	Era of Yudist'hira.
Paricshit,	60	
Janamejaya,	30	90
Suba Satanica,	10	100
Ballana rája,	204	304
Sudra maha rája,	182	486
Sukethan,	142	628
Vishnu Verddhana,	286	834
Chandra Gupta,	210	1044
Vicramáditya, (a son of Chandra Gupta,) ...	2000	3044

The era of *Vicramaditya*, beginning with him, continued 135 years.

	Years.	Vic.	Era.
Bhoja rája,	114		
His sou (name illegible),	21		135

To the south of the *Narmathí* (*Nerbudda*), river the reckoning by the era of *Vicramáditya* ceased; but continued to the north of that river. The era of *Sálivahana* followed; containing eighteen hundred years. In this period the following kings reigned.

	Years.	Sal. Sac.
Salivahana,	21	
Madhava verma,	30	51
Kotta Kevana,	70	121
Nila Canda,	33	154
Mukanthi,	66	200
Choda mahá rája, and his race,	217	437
Yavana Bhoja,	41	478
His race during eight generations,	417	895

Subsequently came RÁMA DEVA-RÁYALU and others. There were from Sal. Sac. 895 three thrones, that is, the *Narapati*, the *Gajapati* and *Aswapati*; the whole of whom ruled during a period of five hundred and ninety-one (591) years. The *Narapati*, and the rayer dynasty, (of *Vijayanagara*), the family names of the two dynasties being *Shampita* and *Calagola*. The *Gajapati* are the *Vaddi* kings (of *Orissa*), the family name of the dynasty being *Miryála*. The *Aswapati* are Muhammadans. The *Ganapati* ruler, (of *Warankal*), named *RUDRA*, yielded them no obedience, and inclusive of *PRATA'PA RUDRA* and his race, a period of 160 years is reckoned down to S. S. 1505. This race is stated to have governed fourteen principalities. The *Gajapati* race is said to have ruled for 155 years, during which they built many *agráhāras* (or almshouses) for brahmans. The accountants

employed by them were of the Tamil country and the head inspectors were *Cauras* (a class of *Telugu*) people. Both were afterwards removed to make way for the *Niyogi* brahmans. This was in Sal. Sac. 1210. Subsequently six generations of the *Reddivaru* ruled, during one hundred years down to Sal. Sac. 1310. There follow some details in which the concerns of the rayer dynasty and affairs of the *Gajapati*, *Mukanthi*, and Muhammedan rulers, are much interwoven. The account comes down to the grandson of ALUM SHAH, named AHMED SHAH, Sal. Sec. 1672, (A. D. 1750,) after which period and down to Sal. Sac. 1720, (A. D. 1798,) it professes ignorance.

Remark.—This manuscript of nine large-sized palm leaves fully written is, for its size, respectable. There seem to be some anachronisms, and an occasional inversion of the order in which the rulers mentioned governed; and it is quite evident that too long periods are given to individuals, especially at the commencement; but these periods are not always to be understood as wholly occupied by the individual mentioned. He may be the head of a race, or the only person of any note during that period; and sometimes such authors, as the present one must be understood as doing the best they can. Upon the whole this manuscript might deserve full translation; the requisite checks and comparisons to be supplied by annotation. The book is complete and in tolerably good preservation: insects have begun to attack it; but as it will require to come under notice again, its restoration has been for the present postponed.

2.—*Parasu Rama Vijaya, or the Triumph of PARASU RĀMA, No. 84, Countermark 388.*

VYJA'SA and VALMICA, being in the celestial world (or *Sverga-loca*), narrate to INDRA the events which occurred in the *Treta yuga*, or second age of the world; to the following purport. The *chakra*, or missile weapon of VISHNU disputed with its holder, telling him that by means of itself (the *chakra*) VISHNU had gained his victories, over the *asuras* and others. In consequence of this presumption VISHNU condemned the *chakra* to be born on earth. Accordingly the *chakra* came into the world as the child of KRITA VIRIYA, but without either legs or arms. The astrologers, being consulted, recommended the monster's being abandoned, and exposed in the woods, or waste places. Being so exposed, ATHISESHAN fed it with poison, considering the case to be desperate, as if not nourished it must die; and the case could be no worse if poison failed of yielding nourishment. The child survived, and the serpent carried it to a fane of SIVA, and left it there; af-

ter committing it to the protection of SIVA. By command of the god, the brahmans belonging to the fane reared up the child. Subsequently SIVA asked the lame and helpless monster what gift it wanted. It requested five hundred hands, and a thousand legs. The petition was granted; and, the name of *Karta Viriya Arjuna* being bestowed, this now powerful being was appointed a *Chakra verti*, or emperor. He ruled in *Jambuna-puri*, a town built for him by *Visvacarma*, (the artificer of the gods,) who was specially summoned for the purpose. While he was thus ruling on the banks of the *Narmathí* (*Nerbudda*), indulging in the usual kingly recreations, *Rávana* came thither; and by his orders, was imprisoned. In consequence of this imprisonment a war arose as the younger brothers, and other relatives, of *Rávana* did their best to effect his release; but their efforts were too feeble; and *Karta Viriya* merely sent his son against them, by whom they were conquered. *Vibhushana*, younger brother of *Rávana*, thereupon went to *Pulast'hya* (the great rishi), from whom their family was descended, and besought his interference. *Pulast'hya* in consequence interceded with *Karta Viriya*, representing that *Ráma Chandra* was appointed to come and kill the said *Rávana*; on which representation *Rávana* was released. Subsequently *Karta Viriya* contemplating the extent of his power, his numerous family, clients and dependents, became elated, and greatly vexed the brahmans.

(In this place there occurs a chasm in the manuscript.)

Parasu Ráma, being greatly incensed, comforted his mother with the assurance that he would go and kill this *Karta Viriya*, who had so slain his father, (i. e. *Jamadagni*.) Taking with him the bow which he had received from his preceptor *Subrahmanya* (which the latter had derived from *Indra*), he proceeded to *Jambuna puri*, and sent a challenge before him, by a messenger, announcing to the tyrant *Karta Viriya* that he was coming to do deadly battle. The monarch incensed prepared to go out to war, by collecting troops and munitions; but his younger brother *Sittira Viriya* represented that the occasion did not call for so much, and that, if permitted, he would proceed to meet this enraged brahman. *Sittira Viriya* was accordingly sent, but his troops were destroyed, and himself slain. The king hearing of this disaster, was again about to proceed when another younger brother named *Sashi Mucha*, made a representation, as the other brother had done; and was, in like manner, sent forth with troops: in fighting with *Parasu Ráma* he also fell. The son of the monarch named *Haya-haya* now came forward; and, after considerable fighting with *Parasu Ráma*, he could not conquer, but himself was killed. The monarch

was distressed; and wondered that a brahman could possess so much prowess. His wife's brother named CAMACROTHA offered his services, and was sent forth at the head of troops. He went to the contest, and, after sacrificing his troops, also perished in the combat. KARTA VIRIYA now took counsel with his ministers who represented to him that the brahman was certainly an incarnation of the divinity; so that it must be useless to attempt resistance; that consequently the proper course would be to effect a treaty of peace, when the adversary would become a protector. His queen named CARUNIYA-DEVI made similar representations, which were disregarded; as were also the cautions of his other advisers. Having already lost his nearest relatives, he disdained to crouch, merely for his own life, to a brahman. Sending out missives to all his warriors, he assembled them, and putting himself at their head he entered his war-chariot, and went forth to battle. The contest lasted for twenty-one days; when KARTA VIRIYA's people were all slain. PARASU RĀMA now took counsel with NAREDA as to the expediency of fighting with KARTA VIRIYA, when NAREDA observed that the adversary was the *Chakra*, and that specially for the purpose of killing the incarnation of that weapon he (PARASU RĀMA) had been born. Encouraged by this information PARASU RĀMA came to the personal contest. It continued for seven days; and, at the close, when KARTA VIRIYA was injured and disabled by the arrows which had been poured in upon him, PARASU RĀMA came to close quarters, and with his axe chopped off his five hundred arms. KARTA VIRIYA now made the last desperate attempt to fall upon, and thereby crush, his assailant; but in the attempt PARASU RĀMA forcibly struck the monarch's head with his hand, and deprived him of life. The whole of the celestials witnessing this result greatly lauded PARASU RĀMA. The queen, and the other families of the palace, who had lost their husbands in the battle, were desolated with grief; but PARASU RĀMA dispatched NAREDA to them, with the consoling assurance that all things had happened by superior causation (or by destiny). The whole of the said females burned themselves on the funeral pile, with the bodies of their slain husbands; and thereby obtained beatification.

PARASU RĀMA returned to his mother and announced, that the pre-existing cause of enmity had been to the fullest degree avenged; and, upon receiving her commands he, in obedience thereto, returned and assumed the government of *Jambuna puri*, releasing from prison all the persons whom the late king had confined therein. While he was prosperously ruling there, the whole of the brahmans assembled and represented to him that on account of the fault, which had a reference to his

mother, he had previously, in promise, made over the whole of the land in free-gift to them (the brahmans), and could not equitably assume the reins of government himself. Not to forfeit his veracity he determined to act up to his promise; and relinquishing the whole land to them, retired, and built himself a hermitage of branches and reeds. The brahmans however still pestered him; asking him if it was right to sell jewels, and other valuables, when he had made over every thing to them. Incensed beyond endurance he went away, and besought a territory from the sea, which he received, in accordance with his request; and there he resided. While living there RÁMA CHANDRA together with SÍTÁ his consort, came that way. PARASU RÁMA scolded him for taking the same name, saying, "I am RAMA, but if you indeed are RÁMA then bend this bow." The other RÁMA did so; but according to this authority (differing from the *Ramáyana*) it broke. PARASU RÁMA perceiving the stranger's strength paid him great compliments, and then, dismissing him, sent him away to *Ayodhya*, PARASU RÁMA himself continued to reside on the territory which he had acquired.

Observation.—The chasm in this manuscript (extending it appears to 41 palm-leaves), would in a literary point of view be serious, especially as the book is a copy of a poem become, as I understand, very scarce, and not to be met with elsewhere at *Madras*.

In the bearing of the half legendary, half historical, subject on the leading object of the present researches the deficiency can be briefly supplied from other sources to the following effect.

The *rishi* named JAMADAGNI, father of PARASU RÁMA, possessed the cow of plenty *Camadhenu* or *Surabhi*, and by means of this cow on the occasion of a certain hunting party, all the suite of KARTA VIRIYA were satisfied. The monarch, in consequence, considered the possession of this cow to be an object to him, and asked it of JAMADAGNI who refused it, as a matter of course, it being the cow of the gods. No solicitations or molestations being sufficient to obtain the cow as a gift, KARTA VIRIYA killed JAMADAGNI, to get at the desired treasure, by force. Hence the resentment and vengeance of PARASU RÁMA. It is probable that the missing leaves would contain an account of the birth of PARASU RÁMA. Towards the close of the poem, the brahmans remind PARASU RÁMA of the fault concerning his mother which is rather equivocally expressed, but most probably alludes to the following circumstance.

JAMADAGNI's wife, the mother of PARASU RÁMA, was named RENUCA; and one day, for a mental transgression of strict conjugal fide-

lity, the father in anger told PARASU RÁMA to take his axe and cut off her head. He obeyed, and cut off the head of his mother, near a *Parcheri* or hamlet of out-caste people, as well as the heads of some of those persons, on their opposing his design. The father approving his proceeding, asked what reward he required, when he requested that his mother's body might be re-animated. The father consented to his request, having at the same time power to fulfil it, and gave directions to his son as to the mode in which the head and body should be joined together ; promising to re-unite, and re-animate them. In the hurry of the moment instead of his mother's head, PARASU RÁMA applied the head of an out-caste woman to his mother's lifeless trunk ; when the whole became re-animated. It is stated that on this legend the *Pariars*, (or outcastes) found their worship of various local *numina*, being none other than ideal forms of the wife of JAMADAGNI, considered to be divine as having given birth to an alleged incarnation of the divinity.

I have no doubt, that all the alleged *avatáras* of VISHNU shadow forth, each one, some great historical event ; not always possible to be rescued from the obscurity of fable. The preceding ones seem to have had their site out of India, but from PARASU RÁMA downwards, all clearly appear to have occurred within the boundaries of this country. Hence I think the incarnation of PARASU RÁMA points to the first acquisition of power by the brahmans, after their coming to India from the northward of *Himálaya*. There is however much more connected with the destruction of the *Cshetriyas*, or aboriginal rulers of the land, than can with propriety be founded on so comparatively slight an authority as this poem. The whole however will probably come under view ; and it may be safer to advance step by step, than to hazard conclusions without carrying full conviction to the mind of the reader.

It is superfluous for me to notice the oversights in this poem, by its author, as to dignity and consistency of subject. A weapon reproaches its wielder, is sent down to the earth for penance, and followed by the offended deity to overcome it there ; and the deity, without foreknowledge, is in some doubt as to the prudence of attacking its own instrument, under so formidable an appearance, until set right by that very questionable character, and meddler in all mischief, termed *Nareda* ; to which may be added the existence of a duplicate *avatára*, and the elder portion not recognizing the younger one. These noddings of intellect are however so common in Hindu mythology that they must

not be thought strange. It is the inseparable concomitant of falsehood, that it carries, within itself, the evidence of its own character.

In the minor matter which regards the condition of this manuscript, it is sufficient to observe that it is old, and worn away at the edges. If complete it might be restored ; but, until it can be completed from some other copy, it may lie over for the present. The abstract given will suffice for every valuable object of these investigations. It is briefly mentioned in Des. Catalogue, Vol. I. p. 333, and therein termed " a prose narrative."

3.—*Tanjavur Charitra or account of Tanjore, No. 122. Counter-mark 325.*

The book commences with the mention of the appeal of CHANDRA SEGARA PANDIYAN to VIJAYAGARA, and the sending of NAGAMA NAYAKER to repel the invader of the *Pandiya* kingdom, that is VIRA SEGARA CHOLA ; whose invasion was thereby nullified, and his own dominions, the ancient *Chola* kingdom, conquered. Over this kingdom CHEVAPA NAYAKER was appointed viceroy in consequence of his having married MURTI-YAMMAL the younger sister of TIRUMALAMMA, the wife of ACHYUTA DEVA-RAYER ; this viceroyship being the dower. He built, and improved, various fanes. His son was ACHYUTAPA NAYADU. His son was RAGHU NATHA NAYADU. His son was VIJAYA RAGHAVA NAYADU who built a new fort at *Tanjore*, and made many other improvements. He built a *Mantapa* at *Mayuram* (perhaps *Mayaviram*), he daily fed 12,000 brahmans, and eat himself afterwards. In a rainy time he was advised to cease doing so ; but he maintained that his own household could not be allowed to eat, till the brahmans were fed ; and when an entire want of fuel was stated to exist, he ordered every wooden material about his house to be taken down or pulled to pieces in order to supply fuel. In three days this supply was exhausted ; he then directed all the vestments in the palace to be dipped in oil, and made use of for fuel. At this time a most valuable jewel became missing from the nose of the female idol in the *Sri-rangham* fane, and the head brahman was greatly molested, as being suspected of the theft. A brahman woman became possessed ; and, speaking in the name of the said goddess, said that the jewel would be found in one of the pots used by VIJAYA RAGHAVA for boiling rice ; where accordingly it was found, to the no small joy of the said ruler. In consequence he gave twenty-four thousand pagodas to the fane ; and, having another image made, the precious jewel was put in its nose, and sent in state to the shrine. He daily went to that fane, before breakfast, keeping 50 bearers as station-run-

ners to carry him. CHOKA NATHA of *Madura* sent an embassy to demand a wife of the family of VIJAYA RAGHAVA, which was refused, in anger : and the reason stated to be, that a *Tanjore* princess married to TIRUMALA SAVURI, from a simple preference given to her father's town, so hurt the pride of TIRUMALA NAYAK that he put her to death ; and the *Tanjore* family then made a vow never in future to give a wife to the *Madura* rulers. The messengers were contemptuously treated. A war was the consequence. It interrupted VIJAYA RAGHAVA's visits to *Sri-rangham* ; but he built a lofty hall in *Tanjore* ; and there, with his face towards *Sri-ranghom*, performed his daily ceremonies. The war proceeded to the disadvantage of VIJAYA RAGHAVA, because of certain incantations, with pumpkins, performed by a brahman, at the request of the *Trichinopoly* king. When the fort of *Tanjore* was assaulted, VIJAYA RAGHAVA made preparations for the combustion of the females of his palace, lest they should fall into the possession of the adversary. That combustion took place ; but not until the crowned queen had sent off a nurse with a young child, four years of age. VIJAYA RAGHAVA became reconciled to his son MANARA ; and the latter fell in a personal contest, hand to hand, with the commander of CHOKA NATHA's troops. The ruler VIJAYA RAGHAVA personally engaged in the contest, and is stated to have requested that musketeer's might not fire on him ; as, if he so died, he could not obtain beatitude. He was killed (as he preferred) by the sword. An apparition of himself fully attended as usual, came to the gates of *Sri-rangham*, and demanded entrance, which was conceded ; under an idea that he might have made peace with the ruler of *Trichinopoly*. After the usual ceremonies had taken place, nothing more was seen of him, and the circumstance being reported to CHOKA NATHA the king, he observed, that it was because of his being a very great devotee of the god. He gave prompt orders by post for the performance of all funeral ceremonies to the bodies of the deceased ; and then assumed the whole of the country. He confided the charge of it to ALAGIRI, the child of the nurse, by whom he himself had been reared, being his foster brother. Meantime the nurse that had fled with the child of VIJAYA RAGHAVA remained at *Negapatam* ; the child passing as her own, till it was twelve years of age ; when VENCANA a *Niyogi* brahman, a *Rayasam* or secretary of RAGHAVA, heard of the matter, and went thither to see the child. In the course of twelve months he assembled about a hundred dependents of the late VIJAYA RAGHAVA ; and, taking the nurse and child, proceeded with these, and those dependents, to the *Visapur* padshah where they met with a favorable reception, and a promise of aid ; being, how-

ever, kept in waiting for a short time. In the interval ALAGIRI, to whom the fort of *Tanjore* had been confided, affected airs of independence by writing on terms of equality to CHOKA NATHA; and when reproved for doing so, he returned no answer. CHOKA NATHA was deeply displeased; but restrained, for the time, any expression of anger; considering that ALAGIRI had strengthened himself and could not be assaulted without mature preparation: under these circumstances the Mahratta chief approached. He was sent by the *Visapur* padshah, with a small force to reduce ALAGIRI, which force he increased by auxiliaries, derived from his two brothers at *Bangalore*, and *Ginjee*. ALAGIRI went out to meet the invaders, and a pitched battle was fought, with considerable numbers engaged; when 400 Mahrattas, and 500 of ALAGIRI's people fell; and ALAGIRI being quite unable to inspirit his people, so as to maintain the engagement, these fled, without looking behind them, till they reached the fort of *Tanjore*. Thence ALAGIRI sent a supplicatory letter to CHOKA NATHA of *Trichinopoly*; but the latter guided by pride, and resentment (rather than by policy) refused to interfere, or send any aid. ECKOJI now laid siege to *Tanjore* and VENCANA, the aforementioned *Viyogi* brahman, it seems, was inside the fort, busied in promoting disaffection. The manuscript states that ALAGIRI finding himself in danger of being arrested, and imprisoned in consequence of the machinations of the brahman, fled, with all his family and immediate dependents, by night, and took refuge in *Mysore*. In consequence ECKOJI had the son of VIJAYA RAGHAVA mounted on an elephant; and the said son, named CHENGA MALA DASU, made a public entry into *Tanjore*. ECKOJI committed the ceremonials of his being crowned to the *Niyogi* brahman; and retired to his troops without the walls. The ceremony of crowning took place. Subsequently the nurse pointed out the spot, in the palace, where the treasure, accumulated by the young man's ancestors, had been deposited; whence were taken twenty lacs of pagodas, and six lacs of pagodas in jewels. With this treasure, a portion being reserved for the newly installed king, munificent donations were made to ECKOJI, and others who had been concerned in the restoration. To defray the expenses incurred by the troops, ECKOJI received the districts of *Combaconum*, *Manarkoil*, and *Papavinasam*; the revenue arising from them to be so applied. It being customary for a king to have a *Dalavoyi*, or prime-minister, the general voice was in a favor of an appointment of the *Niyogi* brahman, named VENCANA to that office, and arrangements to that end were being made; when the young man, consulting his nurse, whom he regarded as his mother, she strongly urged the appointment of the *Chetty* (or

merchant) who had protected them in their distress, and this advice prevailed. The *Niyogi* brahman, bitterly disappointed, counselled ECKOJI to assume the country, which he declined to do. At length, however, by repeated solicitation, ECKOJI explained to him that by such a proceeding he should incense the padshah, and endanger the lives of his father, and kindred. While engaged in conveying secret information of the state of things to his kindred, news came of the padshah's death; and ECKOJI, being exempt from fear from that quarter, next directed his precautions towards *Trichinopoly*, inquiring if he had to anticipate opposition thence. The brahman told him not to fear, but simply to come with his troops and he (the brahman) would insure him the fort; perhaps without firing a shot. In the fort the brahman busied himself with magnifying the anger of ECKOJI concerning arrears unpaid; and on the intelligence of ECKOJI's troops being in motion the panic was wrought up to such a pitch, that the young man fled, and thought himself happy in receiving from the poligar chief of *Ariyatūr* assurances of hospitality and protection. ECKOJI entered the fort without opposition; and from that time downwards his descendants ruled. Their names are mentioned. The names of the children of CHENGA MALA DASU, and some of their marriage connexions are added. They received fiefs first from CHOKA NÁTHA; and, at a later time, when *Trichinopoly* had been taken by the Mysoreans, these also extended protection to them. During the time of TIPPUS sultan the king of *Candi* sent for some of the existing dependents; married them to his relatives; and gave them fiefs in *Ceylon*. At the time when the manuscript was written, a descendant of VIJAYA RAGHAVA was living in the village close by the fane of JAMBUKESVARA. With the mention of this circumstance and the statement that such is a full account of *Tanjore*, the manuscript ends.

Remark.—This manuscript is in a very good state of preservation, and by consequence does not need to be restored. It is historical, and valuable. The opening portion very clearly connects the close of the *Chola* dynasty with the commencement of the rayer's acquisition of that country, and fixes the time to the reign of ACHYUTA rayer. This is an important point gained; and one which I had not before met with. The native line of viceroys from *Vijayanagara*, become princes by the fall of that capital, is another acquisition. The other events confirm or explain the statement contained in the Telugu manuscript, translated and published in the second volume of oriental manuscripts, with some variations; as must always be expected in two distinct, and independent narratives of the same events. On the whole, I consider this document

very valuable, as a contribution towards the history of the *Tanjore* country during the whole of the 15th and 16th centuries, and as such I strongly recommend its full translation.

Professor WILSON has entered this manuscript in his Descriptive Catalogue, Vol. I. p. 310, Art. XIII. He mentions two copies, but I have only met with one* and that one is complete. The notice of the contents which is given in the catalogue, is entirely wrong; and if it do not proceed from a mistake in having classed together two different works as two copies merely of the same work the error is otherwise unaccountable. With the title of *Tanjawur rája Cheritra*, the notice entirely relates to the viceroys or princes of *Madura*; of which the account given is correct, as far as it proceeds, and must necessarily have been deduced from some other authority; but it is entirely incorrect as any exhibition of the contents of this manuscript. I am however too sensible of the difficulties attending these researches to consider the error as any otherwise than unintentional, and if the native assistants of Colonel MACKENZIE gave to Professor WILSON so false a representation of the contents of this manuscript (being moreover Telugu brahmans by birth) they alone are inexcusable. I had made my own abstract before seeking out the document in the catalogue, and comparing the two notices.

4.—*Tanjawur Charitra, (or an account of Tanjore,) No. 121.*
Countermark 316.

The above is the English title on the cover, and a Telugu title on the other cover is *Tanjawur rajalu purvottaram*, or an ancient record of the kings of *Tanjore*. Both these titles are wrong. On a palm-leaf inside, the book is entitled “an ornamented poetical account of the four gates of the fort of *Tanjore*.” This title fully and accurately describes the contents. It contains merely exaggerated descriptions of the four gates; with such inventions connected therewith, as are natural to the imagination of a native poet. By consequence, whatever may be its value as a poem, it is worthless in any historical point of view. There is a very slight deficiency at the end of the first section—(on the first gate)—apparently of a few stanzas: for the rest of the manuscript is complete; and, though old, yet it is in tolerably good preservation. At the end there is a short poem appended, containing praises of *VISHNU*; so much may suffice for this book.

Note.—I do not find this manuscript entered in the Descriptive Catalogue, as a distinct work; and therefore conjecture, that it must have

* See the following article.

been classed by mistake as the duplicate copy of the preceding manuscript. Indeed I have scarcely any doubt to the contrary.

5.—*Maliyadri Narasimha Chandasu, (or a Treatise on Prosody, dedicated to Maliyadri Narasimha, a form of Vishnu,) No. 94. Countermark 487.*

This work which attracted my attention from having the word *Charitra*, or history, (erroneously written in English letters for *Chandrasu*) on the cover, is by KAVI-KETHANI, and treats on the art of Telugu poetry; giving the laws that should guide the construction of the different kinds of metre. It is of some length, in a beautiful hand-writing, and in good preservation. The poem is valuable, on the subject to which it refers; but does not bear on the leading object of this investigation.

The work is briefly entered in the Descriptive Catalogue, Vol. I. p. 353, as a "Treatise on Telugu prosody, by LINGAYA MANTRI of Veylatur." This name probably designates the author's patron.

Manuscript Book, No. 33. Countermark 787.

Section 1.—An account of the Chola-rájas.

VAYAL VARZI ADITTA CHOLAN was crowned at 16 years of age at *Calijur*, west of *Trichinopoly*. He confided the government to a minister, and occupied himself in the worship of SIVA. He fostered the *Saiva* religion. A wild elephant greatly troubled the country. A hundred men were sent to take it; and the elephant, being pursued, met in the way an ascetic, bearing a garland of flowers sacred to SIVA, which it seized and tore: the ascetic greatly incensed killed the 100 men, with an axe which he carried, and also the elephant. The *Chola* king, hearing of the circumstance set out with a force to destroy the adversary; but on coming near, and seeing only a devotee of SIVA, he kept his followers at a distance, and alone approached: he addressed the ascetic in terms of great humility. The ascetic was so overcome with sorrow at having killed the elephant and people of so devoted a follower of SIVA, that he took the king's sword to kill himself, which the king prevented; and a dispute ensued, which should kill himself. The king because his people and elephant had offended so devoted a votary of SIVA, or the ascetic, because he had killed the elephant and people of so exemplary a king. As a child was born to the king on that propitious day (*Suba-dina*) the child was called SUBA-CHOLAN who being installed by the care of his father, the latter died after ruling 350 years. SUBA-CHOLAN married and came to live at *Jambhu kesva-*

ram, where he ruled 35 years. Some fable follows, about the birth of JAMBHUKESVARER, the tutelary god. The son of SUBA-CHOLAN was called VARA GUNA CHOLAN. He dedicated his wife to the service of the god, in the fane of JAMBHUKESVARER. He led her to the fane by the right hand, and soon after all her body except the right hand was found to have been taken into the image. VARA GUNA, considering that he had taken hold of this right hand, earnestly inquired what crime he had committed, that he should be so marked. Soon after the hand also was drawn in. After some time the god, in the shape of a brahman, appeared to the king; and reproaching him for offering up his wife, invited him to make a sacrifice of himself also, which he is stated to have done, when he rejoined his wife on a celestial car, and both acquired beatitude. He ruled 75 years. PUGERH CHOLAN formed the town of *Uriyur* and ruled therein, with great credit, for 60 years. By the advice of his *mantiri* (or minister) he engaged in an inroad on the *Chera* king; in order to get plunder, with which fanes and brahman choultries, might be built, and fame in the world acquired. The *Cheran* repelled the invasion, and the *mantiri*, who was also general, only just escaped with his life; but, to make it appear as if he had conquered, he brought a hundred skulls and shewed them to the king. Among these heads one was discovered to be that of an ascetic, from having braided hair; at which circumstance great grief arising and the loss of the kingdom being feared, the head was put into a case of gold. A fire being kindled the king prepared to commit himself to the flames along with the head; but SIVA appeared, on his bullock vehicle, and told him his devotedness was accepted, that the fault of the war was his minister's, not his, and commanded him to live prosperously. At his own request, notwithstanding he was beatified, holding the said skull in his hand. Hence his epithet *Pugerh Cholan* or "the praised." KRIBALA CHOLAN succeeded, and became accomplished in knowledge. Instead of taking one-fifth as his predecessors had done from the cultivators, he contented himself with one-sixth part. He acquired great ascendancy, and ruled with great equity. By reason of it, the tiger and the cow rested in the same shed; the cat and the rat dwelt in the same place; the snake and the frog were like mother and child, (symbolical language). Thus his people were without strife, or divisions. Injustice was unknown. Notwithstanding, the king fearing neglect on the part of his ministers, or servants, had a bell erected between two pillars in the public street, proclaiming that if any one was aggrieved, it was only necessary to sound the bell, and the king's attention to the case would be given. He thus ruled with great prosperity until 64 years of

age, without the alarm-bell of justice having been even once rung. After his 64th year he had a son born to him. He greatly rejoiced and distributed gifts, on having a child born in his old age. VITHI VIDANGAM was the name of his son; and the usual education was given him. About this time an incarnation of various celestials took place in the form of a deceptive cow. (The description is here translated because it may be of service in understanding other symbolical language in other books.) "PARVATI and PARAMESVARER on the bullock vehicle, BRAHMA, VISHNU, and the remaining 33 crores of deities, the 48 thousand *rishis*, the *asuras*, the *mahá sactis* (female powers of gods), setting out from *Cailasa*, came down to be incarnate on earth, in the following form. The four *Vedas* became the four legs; BRAHMA and VISHNU, the two horns; the sun and moon, the two eyes; the *Vindhya* mountain formed the body; (*Para Sacti*) the female energy of the supreme *Brahm* (or first cause) became the abdomen; D'HERMA DEVATI (the goddess of the air) became the udder; the *svá-loca*, the *svá-miba*, the *sva-rúba*, the *sva-uchiyam* (four degrees of beatitude) became the four teats. VAYAVU (god of wind) became the tail; the atmosphere (*acasam*) became the two ears; LACSHMI became the womb; the sea became the urine; the eight serpents (at the eight points of the compass) became the intestines; wisdom, was the milk; thus deceptively (or symbolically) a cow was formed, and YAMA (death) was its calf." This description is quite sufficient to prepare for symbol, and exaggeration, in the incident to be narrated. This cow, with its calf, went from the fane of *Tiyágara Swami* to bathe and, when returning by a certain street, the king's son VITHI VIDANGAM was making a public procession. The cow and calf became separated in the crowd, and the calf, being bewildered, got under the chariot of the king's son, and was run over by the wheels, being thereby cut in two. The king's son was greatly alarmed, and meditated on TIYAGARAR, (a name of SIVA in the form worshipped at *Tiruvapurur*.) The cow went all over the town seeking for the calf, and on finding its remains, put both halves together, and sought to give it milk. As it would not receive any, the cow arose and wept tears. The alarm of the king's son continued. The cow went to the justice alarm bell and rung it, on the hearing of which the king KRIBALA CHOLAN swooned. On recovering he directed his minister to go and see what was amiss. The grief of the king, and of his wife the young man's mother, is described at length. The wife suggested as a remedy that she would go, and fall under the chariot wheels, and be cut in two by them, as an expiation of the crime. But the king determined that the son himself however precious to them, must in that same manner

perform the expiation. In consequence he summoned a hall of audience, and therein formally commissioned his minister to go and see justice so rendered. The minister set out in state; and, on informing the young man of his orders, the young man gave his consent. The minister was in a sad dilemma, regretting on the one hand to kill so intellectual a young man, and bring on himself the guilt of bloodshedding, and on the other fearing punishment from the king, if he disobeyed orders. To extricate himself from the difficulty he slew himself with his own sword. The king's son being astonished continued his meditation on *Piyagarar*; expecting some further interposition in his behalf. The king was embarrassed at the double accumulation of evil. His wife blamed him for not listening to her first suggestion. The king rejected it as not good; and appointed the minister's son to succeed to the crown. The king set out, surrounded by a multitude of deeply-grieving people till he came to his son at *Tiruvatur*. The son remonstrated on the advantage that was about to be given to envious neighbours, such as the *Pandiyar* and the *Cheran*. But the king considering that, if he did not sacrifice his son, there would be no rain, and no crops, ordered the chariot to move on, which ran over the young man, when prostrate on the ground and cut him into two pieces. The people greatly rejoiced at the spectacle. The two pieces of the king's son were presented before the cow to its great joy; and the crime of slaying the calf was expiated. The king next considered that he had now to expiate the sin of having occasioned the death of his minister. He accordingly was about to strike himself when the aforesaid *TRIMURTI* and other gods, composing the illusive cow, stayed his arm; and at the same time, raised to life again the minister and the king's son. The son was installed under the title of *BHU'PALA CHOLAM*. The gods decreed that the old king, as a reward, should have the pleasure of seeing his son rule with himself. Afterwards without being exposed to the pain of any future birth, the king (for his merit), the king's wife, and the minister also, received final beatitude. On account of his long reign, distinguished by so many virtues, the gods ordered him to be commemorated by the title of *Kribala Chola*, or "the gracious ruler:" he ruled eighty years.

BHU'PALA CHOLA, being crowned when sixteen years of age, and having married when twenty-five years old, exceeded his father in beneficence, and prosperously governed. In a hunting excursion he discovered a large chasm which consumed and wasted the water of the *Caveri* river. He directed a great many men to be employed to fill it up; all their efforts to fill it up were unavailing. Though much money

was expended and every possible method taken, yet the chasm still swallowed up the *Caveri* as before. The king resided eight years in the neighbourhood; the better to superintend the work. A rishi, living near, told the king, that his labour was in vain, seeing that for some cause the *chakra* of VISHNU had entered the earth there, and by consequence the remedy was that either some enlightened king, or else some virtuous *rishi* (or ascetic), must enter the chasm, and be seated beneath on the *chakra*, when the gulph would close. The king took leave and returned to his town; where he assembled his council and declared what he learned. After many donations, he proceeded in state, with the intention of casting himself into the chasm. The minister told the *rishi*, that if the king plunged into it, the same would be dishonor; but that if he (the *rishi*) entered, it would be to him lasting fame. The *rishi* accordingly entered the chasm which immediately closed. A fane was built on the spot called *Tiruvála anchur*, (or the sacred whirlpool turning to the right hand.) The king and his suite returned to the palace; where he prosperously ruled, but the *Caveri* now did damage, by overflowing its banks; and the king went to the wilderness, and did penance six years, on that account; when SIVA, sent a shower of mud, which raised the embankment, and kept the river within its proper channel.

A certain chief by the favor of RANGA SVÁMI (VISHNU) built the fane of *Sri Ranga*, with the spoils which he had plundered from the people even to the extent of snatching away the *táli*, or sacred token of marriage. Many laborers were employed, and a great balance remained due to them, which the said chief had not the power to defray. He in consequence inveigled them all into a boat, promising to pay them in the middle of a branch of the *Caveri*; and, when there, he upset the boat, and they all perished; but as this was a sacrifice to RANGA SVÁMI, all the laborers so sacrificed obtained beatification. Hence the spot acquired the name of *Colidam* (corrupted into *Coleroon**).

The king, expending a great deal of money, had the *Caveri* conducted to the westward of *Combaconum*, and opened channels for irrigation to a great extent around; effecting a communication between the *Caveri* and *Coleroon* rivers. Of the additional produce so obtained, he took 1-6th, and gave the rest to the people. At *Combaconum* he built many fanes and prosperously ruled. His reign lasted 70 years. He had no son; but his wife was three months pregnant. The *Pandiyan* took advantage of this time to attack the kingdom, and the aforesaid *Chola* king being worsted, took refuge with *Cumbhesvarer*, and did penance in

* This is a current tradition as to the origin of the name of the *Coleroon*; the meaning of *Colidam* is "the place of slaughter."

the shrine sacred to him; and after a time, he obtained beatification. As he had done so much benefit to the country, in the embankment of the river he was called CARI CANDA CHOLAN.

APPENDIX.

The *Chola* *rajas* were so called because of their being of the solar race. (The derivation of *Chola*, from *Surya*, is not clear.)

Uttunga Cholan; Kuttunga Cholan; Tirumudi Cholan; Aruntapa Cholan; Rajendra Cholan; Manunithi Cholan; Ala peranta Cholan; Vara-guna Cholan; Ala peranta Cholan; Ariloru kadamai kondai Cholan; Anatana Cholan; Cadu-vetti Cholan.

Another list of the *Chola* princes is given, with the explanation of the names; and shewing three different names sometimes given to the same individual. The period of reign, in all, is too great. There were in all 23 kings of this race it is said. After CARI CARA CHOLA the race ceased.

Remark.—The preceding paper is of importance in many points of view; and the origin of the fane at *Seringham*, as herein stated, needs to be compared with other documents.

Section 2.—Discourse between a Tiger and a Cow.

This account is either a mere fable, or else a symbolical account of some transaction occurring near *Conjeverám*; in which a cow seized by a tiger pleaded for a loan of life, on certain reasons alleged, promising to return on a fixed day. The tiger gave the required leave, and the cow punctually returned.

The section is incomplete; and since it professes to be translated from the Tamil, which original work, if I mistake not, is found in the collection, any consideration of it may be deferred till that work comes under notice. This fragment, to the best of my judgment, is useless.

Section 3.—Abridged account of ISVARA, VISHNU and BRAHMA.

This paper contains a description of the divisions, and residents, within the regions of *Vatcont'ha* and *Kailasa*, similar or the same, (difference of language being excepted,) to the Tamil manuscript translated and printed in *Or. Hist. MSS. vol. 2. App. B.* Any further notice of it here is, by consequence, superfluous.

Section 4.—Account of the temples of Cánchi or Conjeveram.

The legend of the place, as collected by CAVELLY VENCATA BORIAH. It was a chosen place by SIVA. PARVATI shaded the sun and the moon, being the eyes of SIVA; by reason of which darkness covered the earth;

and to blot out the fault so committed, PARVATI came down to do penance under a mango-tree, at that place. SIVA sent various rivers, the origin of which are mythologically stated.

VISVACARMA built a temple; and after many intermediate matters (which however are not stated) in the time of CRISHNA rayer, even as he had rebuilt many other temples so he rebuilt the fane of *Ecambar-isvara*. There are other mythological or *pauranic* statements of the foundations of other places, based on fables concerning BRAHMA, VISHNU and SIVA. At a later period there is mention of four towns around, to which roads led from *Conjeveram*; that is first, *Mahabalipuram*; second, *Devalapuram* to the south; third, *Virinchipuram*, and fourth, *Narayanapuram*, (first, *Vaishnava*; second, *Saiva*; third, *Saiva*; fourth, *Vaishnava*.)

VISHNU born as NAREDA introduced the *Bauddha* system, to expiate which fault, he was required to do penance at *Conjeveram*. The *Jainas* spread through the country, and had a settlement near *Conjeveram*. SANCARÁCHARYA came thither, and overcoming the *Jainas* in disputation re-established the Hindu religion, according to his own tenets. There is still however a small town near, called *Canchi* of the *Jainas*. Another existing evidence of the ancient prevalence of the *Jaina* system at this place is, that in the walls and edifices, built by CRISHNA rayer, images of the *Jaina* system are wrought in with the other workmanship.

BRAHMA performed a great sacrifice at one of the sacred hills at *Conjeveram*, in the fire of which VISHNU, as VARADA rája, was born; (being the form of VISHNU worshipped in the *Vaishnava* fane at *Conjeveram*.) The elephant of VISHNU gathering lotus flowers from the tank, had its legs bitten off by an alligator; and VISHNU slew the alligator with his *chakra*: (an event commemorated in processions by carrying round the image of an elephant without legs.) Notice of the different *vahanas* or vehicles, used for the processions of the image of VISHNU, at the great annual festival in the month of May.

Notice of the images within the Saiva fane of Ekambèsvara.

The origin of the place is lost in the remoteness of very ancient time. The image of CAMÁCSHI was originally of clay. Three towers and the inner shrine were constructed by TRIYAMBACA RAYALU. In one shrine there is an emblem of SIVA at which RAMA (CHANDRA) performed homage, in order to expiate the sin of killing the *racshasas* of the country. There is also an image of PERUMAL (VISHNU) to commemorate the cure of SIVA, (after swallowing poison with the *amrita* in the *Curma dvatara*.) Brief mention of other images connected with similar legends. A repetition of the fable connected with the mango-tree, men-

tioned at the beginning. Some porches and shrines were built by TEN-AGARA-PILLAI of Tanjore. Other notices of different localities of the fane. The hall of a thousand pillars is built over the place where was the pit in which BRAHMA performed his great sacrifice; there is a sacred pool in the midst. In the *Barata Candam*, or continent south of Mount *Himáloya* there are one thousand and eight fanes; of these one hundred and eight are special, and of these latter twenty-eight are within the district of *Conjeveram*. The names of these twenty-eight fanes are given. Next is given a specification of sacred pools (*tirt'has*) connected with the said fanes.

Notice of the Ammen-kovil, or fane of the local goddess.

The shrine was built by YIRA DEVA MAHA RAJA. A tower was built on the south side by PALLALA RAYUDU. To the west of the goddess' shrine there is an image of SANCARÁCHARYA, also of DURVASA RISHI. There is a golden image of CAMACSHI, termed *bangara* (the golden). An image of SANTANA GANAPATI paid homage to by the childless, who desire to have children: other minute details. Just before the spot, on which the image of CAMACSHI is placed there is a chasm, hollow, or cavern, in the earth. SANCARÁCHARYA is traditionally stated to have concealed the image therein for greater safety; and it is popularly reported that the original CAMACSHI is still hidden therein.

Detail of worldly power.

The names of a few monarchs are given, coming down to the latter rayers, and *Gajapatis*. Lengthened periods are ascribed to the earlier rulers (gathered from the *Puranas*), but nothing is given that can add to or correct other information, on these subjects.

Rulers at Conjeveram.

BUDA-LINGA-PAIYA.	ALI MURAD KHAN.
JULU PUBAR KHAN (i. e.	DAVUD KHAN.
ZULFECAR KHAN.)	SADULLA KHAN.

Here the writer is more at home; a notice is given of the events connected with the Muhammadans of *Vellore* and *Arcot*, through the wars in the Carnatic, and down to the settled rule of MUHAMMED ALI. It is brief considering the multiplicity of the transactions; but may have its merit, as a testimony written from tradition, near the time and place of the events recorded, and by a native, acquainted with native opinions.

Cánchi Mahatmyam.

Another brief version of the legend noticed at the commencement. That is to say PARVATI shaded both eyes of SIVA which produced dark-

ness over the world, and troubled both gods and men. As a punishment for this "legèreté" PARVATI was sentenced to become CÁLI, and then to go down to earth to do penance, which took place at *Conjeveram*. After acquiring merit by that penance, in which her form included several rivers, SIVA asked what gift she required, and the reply was, that he would come and marry her at that place. To this request he consented; and, when he came, he was accompanied by BRAHMA and VISHNU; the former of whom performed a great sacrifice. SARASVATI and LACSHMI were born from the eye of PARVATI; and the marriage between BRAHMA and VISHNU and their consorts was celebrated at the same time, as the marriage of SIVA and PARVATI. The place hence acquired great celebrity. The *vishis*, who were present at the ceremony, each one established an emblem of SIVA bearing his own name; and on the eight points of the compass, there are eight *Durgas*, as guardians. There is also specially a fane of *Bhairava*, a ferocious form of SIVA.

Remark.—Any information connected with *Conjeveram* acquires importance from the celebrity of the place, and its great influence as a metropolis of idolatry. The legend of PARVATI shading the eyes of SIVA is *pauranical*; but I think it deserves special notice, though perhaps not in this place. If I understand the import aright it designates something differing from any eclipse: but I would wish to examine the subject in connexion with other records before offering any opinion. The circumstances concerning the *Jainas* tend to elucidate some parts of the *Chola patayam*, and it would seem as if SANCARÁCHARYA were the *Saiva* teacher therein referred to. The antiquity of the structures at *Conjeveram* cannot be great, since they are posterior to the time of SANCARÁCHARYA; but that the place had some little note under early *Chola* kings, before the ascendancy of the *Jainas*, seems conjecturally probable*.

This paper has been restored from small writing, and pale ink, to a more permanent form.

Section 5.—Account of the Setupatis or feudatory chiefs at Ramnad.

This section was before restored in Vol. I., for reasons stated in the accompanying abstract then given. See 1st Report. Art. B.

* The king of *Káncchipura* is mentioned in the Samudragupta inscription at *Allahabad* as *Kanchiyaka Vishnu*,—that being the title of the race then ruling there.—J. P.

Section 8.—Account of the Vellugótvaru, descendants of the Vencata-giri rája, with an account of Vencata-giri in Telingana.

Stanza. The Velma race were born from the feet of VISHNU.

In the village of *Anumanagal* a son of SHEYUR POLU REDDI of the tribe of *Anumagantu*, with his servants named RESAN, when ploughing a waste piece of land, discovered a hidden treasure and an aerial voice was heard, telling the master (SHEVI-REDDI), that if he offered a human sacrifice he might safely take possession of it. While in great doubt, his servant RESAN voluntarily offered to become the sacrifice, on condition that the REDDI should engage on behalf of himself and of his posterity, that he and they would take the cognomen of RESALA, and always marry the first wife from out of his (RESAN'S) pariah tribe. To these conditions the REDDI assented; and, offering his servant in sacrifice to BHAIKAVA, took possession of the treasure. At a subsequent period while surveying his now very extensive fields, a storm came on, and while he stood under a tree a thunderbolt descended close to him, which he took up without fear, and then the hamadryad of the tree appeared to him, and made him great promises for the future. Two of his inferior workmen had taken refuge under the same tree, and unseen by him, had seen and heard what passed; the report of which they carried to the village, where it was much talked of; and at length reached the ears of the *Ganapati*, or prince of the country, who sent for SHEVI-REDDI, and after flattering distinction gave him certain banners, and ennobled him as feudal lord of a country producing a lac annually. He also received the title of *Pillala marri Bétála Rávu*. From the *Bétála*, or *hamadryad*, before mentioned he also, received certain immunities of a super-human order.

2. He had three sons, named respectively DÁMA NAYADU, PRASADITYA NAYADU, and RUDRA NAYADU. Two were much distinguished. DÁMA NAYADU, the eldest, by skill in the use of the sword, by great advantages obtained over others, and the acquisition of wealth and honors. The second PRASADITYA was an officer of authority under GANAPATI DEVA RAYALU; and had a hand in the circumstances of the succession after his death, whereby the royal authority at *Oróganti* devolved on PRATAPA RUDRA.

3. The aforesaid DÁMA NAYADU was the head of his race. Two of his many sons, by name VENNAME NAYADU and SABBÍ NAYADU, were most distinguished.

4. VENNAME NAYADU became head of the race. His son was YIRADÁCHA NAYADU who, with his cousin, son of SABBÍ NAYADU, were



successful in their incursion against neighbouring places, extending to *Canchi*, and to the *Pandiya* kings. The Mussulmans are also mentioned as beaten in defence of another chieftain. The son of *VENNAMA* named *SINGAMA NAYADU*, became head of the race, and was slain before the fort of *Jalli palle*.

5. His two sons *ANUPOTA NAYADU* and *MÁDAH NAYADU* assembled a great force, and overcoming all enemies, carried their power to an increased extent, adding to the fame of their race, and distinguishing themselves by donations to the brahmins. An extravagant account is given of the number of *rájas* conquered by them, the *Chalukyas* being among the rest, and also the forces of the *Gujerati rája*. The two chiefs *ANUPOTA* and *MADAH* divided the country into two parts, and ruled in distinct towns, each one over his portion ; the first in *Rajakonda* and the second in *Devakonda*.

6. The son of *MÁDHU* named *PEDDU VEDA GIRI NAYADU*, added to former conquests, and acquired additional trophies.

7. *PEDDA VEDA GIRI NAYADU* had two sons, named *RÁMA CHANDRA* and *CUMARA MÁDHA NAYADU*, who made some conquests.

8. The sons of *CUMARA MÁDHU* were *CHINNA VEDA GIRI N.* and *LINGAMA N.* The father was slain by another chief, and *LINGAMA N.* slew him in return, who also overcame some others.

9. *LINGAMA NAYADU*'s son was *PURVATA NAYADU* whose son was *LINGAMA NAYADU*.

10. The race is carried forward, through a few other names.

11. Some strifes of neighbouring feudal lords.

12. Records assistance rendered to the rayer in suppressing some opposers at *Chánnapatnam*.

13. *SINGAMA NAYADU* was versed in learning.

14. *DIMMA NAYADA* is said to have conquered the *Gujerat*, *Chola* and *Pandiya* *rajas*.

15. *DHURMA NAYADU* conveyed to his posterity the title of *Ravuvuru*.

16. The succession of the race is carried on down to 28 *VENCATADRI NAYADU*, who ruled at *Vencata-giri*, and in his time the name of the *Vencata-giri* kingdom originated. The name of that place from books and inscriptions is found to have been *Kal mali*, from the name of a local goddess worshipped by a few cottagers. One named *GOBARI BUKHA rája* had built a fort and resided there; he was driven away by *VENCATADRI* who took possession, changed the name of the *Sacti*, and caused it to bear the name of *Vencata-giri*, from *VISHNU* worshipped at *Vencata-challa (Tripetty)*, distant four *ámada* or *kadums* (40 miles).

His son was RAYAPA NAYADU who succeeded to the government, 29 down to 31. Some other names down to YASAMA NAYADU, and SINGAMA NAYADU, by whom a great battle was fought with other opposing chiefs in a plain near *Utra Melur*, in which they gained a victory, Sal. Sac. 1523, (reference to another book called *Sasamalica*, No. 8,) its substance given here. (The scene was in the Tamil country, *Madu vantaca*, being mentioned as near the place of combat.) The Muhammadans were mingled up in the affair, in connection with *Ginjee* and *Vellore*. Down to 34 many details are given, too complex for abstracting, among which it appears that the *Velligotivar* were driven, from their native district by the Muhammadans, who took it into possession; that *Vencata-giri* was a part only of the *Chandra-giri* kingdom; that the Muhammadans acquired an ascendancy, and that certain cruelties were attendant on ZULFEKAR KHAN'S incursion into the Carnatic, that *Vencata-giri* was assumed into possession by them, but by solicitations at the court of *Golconda*, a restitution of this and some other districts was made, on condition of paying tribute. Certain grants as made by persons holding privileges under AURUNGZEBE, are mentioned in the manuscript as deduced from inscriptions, one of the dates is 1618 Sal. Sac. (A. D. 1696).

35. Some other names, and date of a grant by PEDDA YASAMA NAYADU in S. S. 1620, with him the line of VELLUGOTIVARU ceased, and the race was transferred to adopted children.

36, 37. Some other details; an invasion of Muhammadans from *Arcot* who plundered and burnt, and in the disturbance many records perished; when the invasion had swept by CUMARA YASAMA NAYADU again resumed possession.

38. BANGARU YASAMA NAYADU (the present raja), his agent SETHU RAYEN went to *Madras* and procured an intervention of the Company's troops to confirm him in his authority. Details of PEDDANA and SUBRAHMANYAN the agent of BANGARU YASAMA NAYADU, leading to an awful tragedy. PEDDANA had accused SUBRAHMANYAN in the *Chittur* court of firing a village, and SUBRAHMANYAN told him that in consequence he would have him carried out by the legs dead, like a dog. In prosecution of his design, he constructed a variety of annoyances, and got up a suit in the zillah court; PEDDANA when summoned refused to appear. When an attempt was made to seize and sell his house, he forcibly ejected the officer of the court; in consequence a summons was sent by the hands of a captain of sepoy with a company under his command. PEDDANA not knowing the English customs, and from the high spirit of the *Velmavar*, had prepared his house so as to have all

the inmates killed, and the house set on fire. On the captain making the demand of his appearance at the court to plead, he went inside and shut the door, but losing heart to transact all the tragedy, it was managed in part by a servant. The result was the murder of all the inmates PEDDANA included. The door was then thrown open. The officer grieved went away, and left the disposing of the bodies with BANGARU YASAMA and SUBRAHMANYAN; who, as they passed, spat on them, and had them carried out heels uppermost as dogs are carried, and then not buried, but merely covered with a little earth, exposed to beasts and birds. The *Chittur* court had an examination of the outdoor servants but no guilt attached to them. The manuscript leaves off without any mention of the death of SUBRAHMANYAN which is otherwise known to have since occurred by a cancer on his back slowly and with extreme torture. BANGARU YASAMA is said to be still alive.

Remark.—The preceding abstract is not much more than an index. A translation of the entire manuscript may be made by me another time. A notice of the manuscript is entered in the Des. Catal. Vol. I. p. 306. It is more than usually correct as far as it goes, and will be found in most of the leading points to harmonize with the foregoing outline.

D. MAHRATTA.

1. A roll of country paper, without title, mark or number.

The contents of this roll consist of copies of three letters addressed by RAGU NATHA YADAVA to NANA FARNIS relative to a disputed succession to the throne at *Poonah*. In answer to communications from NANA FARNIS, (the minister of state,) his correspondent RAGONAUTH gives him details of the strength and munitions of the subordinate rajas and chiefs, the *Nagpore* raja, and the *Guicovar*, or raja of *Gujerat*, being among the number. Various details are added as to battles, and connected circumstances. The letters are written in the midst of the circumstances which they describe; and might be of use to a historian engaged in narrating the events of that particular period, comparatively recent, but they are too minute, and local, to admit of abstract, which besides does not appear needful, since a brief index pointing to the existence of such correspondence may here very well suffice.

The roll attracted attention from its decayed and injured condition. A little trouble being sufficient to put it into a permanent form it was restored; for papers of such a sort may acquire an additional value with time.

2. Another roll, a little larger in size was found on examination to have been filled with statistical details, concerning the boundaries, pro-

ducts, revenues, and similar matters, of the Peishwa's dominions, of which *Poonah* was the capital. But being torn, damaged, transposed and in part lost, any attempt to restore it was given up; and the loss probably is not of any consequence.

3. Copy of an ancient record of the rulers of *Chandra-giri*.

Manuscript Book, No. 45. Countermark 735.

This book on examination proved to be an interesting (though very brief) chronicle of the *Yadava* race, which formed one of the early dynasties of rulers in this country.

The record is said to have been extracted from all the documents in the fort of *CRISHNA rayer*, relative to the rayer dynasty.

The commencement of the *Yadava* dynasty is dated from Sal. Sac. 731, (A. D. 808-9,) beginning with *SRIRANGHA YADAVA RAYALA*, and the dynasty is continued downwards to the foundation of the fort, concerning which there is a little, apparently fabulous, matter. The fort was first called *Deya Durgam*, by *YADAVA RAYALU*, in Sal. Sac. 929, (A. D. 1007-8.) At a latter period one of its rulers meditated an invasion of *Vijayanagara*, but abandoned his intention on discovering the power and resources of *CRISHNA rayer*. The conquests of the latter are briefly alluded to; and the circumstance of the *Gojapati* prince, giving his daughter to *CRISHNA rayer* to cement a treaty of peace with him, is mentioned. The date of *CRISHNA rayer*'s death is fixed on the 8th of *Cartikya* month, Sal. Sac. 1452, (19th or 20th November, 1531.) In all twenty-seven princes of the *Yadava* race ruled, during 339 years, (an average of $12\frac{1}{2}$ years to each.) The name of *Deya Durga* was changed to *Chandra-giri*, by one of the race, for reasons specified. The country came under Muhammadan rule in Sal. Sac. 1587, (A. D. 1665-6.) The names of these rulers are given: they governed, in all during ninety-five years.

There follows a descriptive mention of the fanes, and other sacerdotal buildings erected, or endowed, by the different rulers of this dynasty: *Tripetty* being the principal one.

Remark.—This document claims a full translation. It possesses considerable internal evidences of authenticity; and its evidence in history is required. The book is damaged though to a less degree than many in this collection. I have had it restored for the being better preserved, pending its full translation.

E. SANSKRIT.

Palm-leaf Book, No. 17. Grant'ha Character.

Copy of an Inscription on copper of Sadá Siva Mahá rayer.

Recapitulation of the lunar race, down to YAYATI; of whose line ISVARA RAYEN was born. NARASA RAYEN, TIMMAJI NARASIMMA RAYEN, VIRA NARASIMMA RAYEN, CRISHNA RAYER, ACHYUTA PAYER; the two latter were half brothers, sons of VIRA NARASIMMA RAYER, by different mothers: (here some letters are lost or left out, so that there is no intelligible meaning;) SADASWA RAYEN. In his time the inscription was recorded, Sal. Sac. 1478, in the *Nala* year, in *Margara* month, on Sunday, a new moon day, and eclipse. At which time, peculiarly adapted to religious donations, certain lands and numerous villages were given by the rayer, being then in the shrine of *Vitalesvara Svámi*, on the banks of the *Tungabhadra* river, to *Ramanújáchárya* at *Sri Perambúr*, the different villages and lands being in the neighbourhood of that place. The usual sloca at the close is not given, a leaf perhaps being wanting.

Note.—It is doubtful whether the donation was to RAMANUJA, in his life time, or to a shrine first established by him; the latter from dates, and attendant circumstances, seems to be most probable.

Conclusion.

My report for the three months inclusive from the beginning of October to the end of December, 1837, here finishes. It may perhaps appear, that the abstracts, herein given, offer results of considerable importance. It is however superfluous to add any further observations to those already given, at each step of the investigation.

Madras, December 31st, 1837.

II.—*Some account of a visit to the plain of Koh-i-Damán, the mining district of Ghorband, and the pass of Hindu Kúsh, with a few general observations respecting the structure and conformation of the country from the Indus to Kábul. By P. B. LORD, M. B. in Medical Charge of the Kábul Mission.*

[Communicated by the Government of India.]

A parallel of latitude drawn through *Kálabágh*, and west of the Indus would present a remarkable difference in the course of the mountain chains as observed to its north, and south sides. In the latter direction the *Solimán* and *Kála* ranges, the one of which may be looked on as a continuation of the other, generally preserve an almost perfect parallelism with the course of the Indus; while on the other side every range, and they are numerous, from the *Himáluya* and *Hindu Kúsh* to the salt range

inclusive are at right angles with the direction of the stream. In other words the general line of the former is north and south, of the latter east and west. It is of the latter and the country they include that I would at present more particularly speak.

In addition to the general course of the chains thus laid down, there is another fact subordinate yet of no less importance towards determining the physical formation of this part of the country. When the two mountain ranges have for some time preserved their parallel east and west course, the northern is observed to deflect or send off a branch towards the south, while a corresponding deflexion or ramification of the southern chain comes to meet it, and the plain which otherwise would have been one continued expanse from east to west is thus cut into a number of valleys, the longitudinal axis of which however, is still in general to be found in the same direction. If we conceive these valleys to be few, spacious, and well marked towards the north, and south, while in the central or *Kohat* region, they become small, numerous, and crowded so as to resemble a tangled maze, or net work, we shall have a just general conception of that tract of country west of the Indus, which may be familiarly described as lying between *Kábul* and *Kálabágh*.

Unquestionable geological facts, such as the structure of igneous rocks, poured out under strong pressure, the presence of fossil shells, &c. lead me to the belief that several if not all of these valleys were at some former time the receptacles of a series of inland lakes, and the nature of the shells found (principally planorbes and paludinæ), seems to indicate that the waters of these lakes had been fresh. In this manner three grand sheets of water separated by the mountain deflexions before alluded to, would appear to have occupied the entire country from *Kábul* to the Indus, and their basins may now be distinguished as the plains which afford sites to the three cities of *Kábul*, *Jalálábád*, and *Pesháwar*. The drainage of these basins is most tranquilly carried on by the *Kábul* river which runs along the northern edge of each, conveying their united waters to the Indus; but in former times when more energetic means were necessary the mountain barriers burst and the shattered fragments and rolled blocks, that now strew the *Khaiber pass* bear testimony to its once having afforded exit to a mighty rush of waters, while the *Gidergalla* (jackal's neck) or long defile east of the plain of *Pesháwar* clearly points out the further course of the torrent towards the bed of the Indus, whence its passage to the ocean was easy, and natural. While at *Jamrad* I had an opportunity of observing a fact which strongly supports the idea I have ventured to propose for a well which the Sikhs were employed in sinking within their new fort of *Fatteh Garh*,



and which had already proceeded to the depth of 180 feet, had altogether passed through rolled pebbles of slate and limestone, the constituents of the *Khaiber* range of hills. But the wells of *Pesháwar*, generally twenty or thirty feet deep, never passed through any thing but mud and clay strata. Now the fort I have mentioned is situated at the very mouth of the *Khaiber pass*, and *Pesháwar* is twelve or fourteen miles distant towards the other extremity of the plain. If then this plain were once the basin of a lake, into which a stream had poured through the *Khaiber pass*, it is obvious that such a stream would at its very entrance into the lake have deposited the rolled pebbles and heavier matter with which it was charged, while the lighter mud and clay would have floated on to a considerable distance; in other words, the former would have dropped at *Jamrad*, the latter gone on to *Pesháwar*, and this is precisely the fact*.

Connected with these three basins and joining that of *Kábul* almost at a right angle from the north, is the plain of *Koh-i-Daman* (the mountain's skirt), which stretches away to the very foot of *Hindu Kúsh*, and gives exit at its northern end to four several routes† by which that chain may be passed. It is an extensive and fertile plain, bounded on all sides by primitive hills, those to the north, east and south, being chiefly of slate including all the gradations from clay to mica, and even at times closely bordering upon gneiss; while the ridge to the west shows the bare granite, and it is at the base and along the windings of this, that occur the vineyards, orchards and gardens of *Shakar-darrá*, *Istalif* and *Isterkhech*, so famed in the commentaries of the emperor *BABER*.

The plain is about forty miles in length, with a mean breadth of perhaps sixteen or eighteen. Mountain streams, pouring down from each of the four passes I have mentioned, and bearing their names, unite their waters in its centre, and afford facilities for irrigation which have been by no means neglected; the mulberry, the vine, the walnut, the almond, with peaches, apricots, melons, and fields of cotton, tobacco, rice, wheat, barley, juwari and other grains occur in the richest abundance.

Naturally anxious to visit a place of which we had heard so much, and the praises of which the *Afgháns* are never tired of reciting, we

* No mere irruption of water from a mountain lake would have time to grind down masses of rock into boulder, pebble, gravel and sand. These deposits are rather attributed to very long continued action of ocean beaches, or mountain detritus.—ED.

† From a point towards the centre of the plain (*Dush-i-Bagram*) I found the bearings of these four passes as under:—

Panjther pass, bearing N. Shabel, 15 N. W. *Parwan*, 25 N. W. *Ghorband*, 50 N. W.

availed ourselves of the first opportunity afforded by a slight intermission in our business and started from *Kábul* about the middle of October; Lieutenant LEECH, and myself having the further intention of proceeding to the top of *Hindu Kúsh*, he for the purpose of reconnoitring the pass, and I to pick up any stones, plants, or animals that might occur in the way.

Our first day's march was sufficiently barren, being chiefly occupied in passing over the low slaty ridge which separates the valley of *Kábul* from that to which we were proceeding, but on the second morning having gained the entrance of *Shakar-darrá*, our entire road was one succession of gardens. The trees had already put on their beautiful autumnal tint. The mountains exhibited the grandest varieties of light and shade. Clouds still lingered amongst their inequalities and rested here on a speedy cliff, there on a lengthened streak of snow which, deep in a ravine, had resisted the whole force of the summer's sun. The dead nettle, the thistle, the dog-rose covered with hips, the may with its glistening hair berries, the wild mint, fennel, lavender, and a thousand other well known plants perfumed the air or recalled our recollections to our native land. The morning was calm, grey and autumnal. We were filled with a tranquil pleasure.

Our tents were pitched at the entrance of the *Bágh-i-Sháh*, a garden planted by SHÁH TAIMUR. We entered and found it spacious and beautiful though in decay, many of the loftiest poplars (*Chinars**) had lately been cut down by orders of MUHAMMAD ABKAR KHÁN, but so great was the abundance of shade, that their fall would scarcely have been noticed had they not lain in our path. At the farther end was an ascent which we climbed and from which the most glorious prospect of vale and hill, sunshine and shade, mountain and rivulet, garden-and woodland, burst on our view. There had formerly been a garden house on this spot, and beneath we could perceive where the water dammed in had formed a lake, but the dam was destroyed, the lake was gone; a decayed tree had fallen across the bed of the rill which had formerly supplied it, and its waters diverted from their course had spread themselves over the adjacent flats, and converted them into plashy swamps.

It struck us as not a little singular that amidst so great a profusion of vegetation animal life seemed all but totally extinct. A few magpies, sparrows and pigeons with an occasional chikor (*Tetrao rufus*) were the sole representations of the winged tribes, as were a small lizard, and a frog, of the reptiles. The greater number we were told had emigrated for the winter towards the warmer regions of *Jalá-*

* *Platanus Orientalis*.



Labád and *Pesháwar*, and even some as the *Kalang* or Indian crane to the plains of Hindustan. The thermometer in our tents at this time ranged between 45° and 65° Fahr.

We lingered for three days amongst those delicious vales, passing slowly through *Shakar-darra*, *Ká-darra* and so on to *Istalif*, but the snow began to fall rapidly on the higher hills, and it became evident that our attempt on *Hindu Kúsh*, must be made immediately or relinquished for the season. Without further delay, therefore we left the skirts of the hills and marched to *Charikar*, a flourishing town towards the northern extremity of the plain, where a few hours sufficed to make the necessary preparations for our excursion.

The entrance of the *Ghorband pass* by which we meant to penetrate was but four or five miles in a northwest direction from the town, but though the foot of the mountains was thus near, the road through them was no less than fifty miles in length before it led us to the top of the pass over *Hindu Kúsh*, by which the great caravans from Tartary or *Turkistan* annually arrive in *Kábul*. As the *Uzbeks* at the other side of the pass are notorious slave-dealers, secrecy and dispatch were alike advisable; accordingly on the morning of the 18th October, equipped as *Afghan* horsemen and accompanied by four mounted attendants, and a guide to whom alone we had entrusted our plans, we marched from *Charikar* and halting an hour at noon to rest the horses, succeeded by sunset in reaching *Sherikai* the last inhabited spot at this side of the pass, from which however it was still distant eighteen miles. In the course of this day's journey we had first come on micaceous schist, dipping to the N. W. at an angle of about 45°, which soon however increased until the strata became perfectly vertical. Gneiss then succeeded, but soon gave way and the mica slate again came up graduating insensibly into black slate, intersected by numerous thin veins of quartz, and presenting in the neighbourhood of *Sukht-i-chenar* a large, valuable though unwrought, iron mine, of the kind usually denominated red sparry iron ore! This gradulation of the micaceous into clay slate is well shown in some of the specimens I was enabled to collect, and which with specimens of the different ores mentioned I hope when an opportunity presents to have the honor of forwarding. In the mica slate immediately over the entrance of the pass, and on the very summit of the hill, occurs a vein of silver ore which however appeared to me so poor that it would scarce pay the expense of working. I heard of a much richer vein in the pass of *Panjabir*, which was said to have been worked to a great extent in the time of the *Bhagatais*, but this I had not one opportunity of seeing: during the

march granite once or twice made its appearance, shooting up abruptly through the slate. It was of a large open grain approaching nearly the species termed graphic. Wherever the valleys opened advantage had been taken of it for the purposes of cultivation, and we passed several little green spots, containing mulberries, walnuts, fields of barley, and a dwarf cotton, which, though in pod, did not exceed six or eight inches in height. Next day the formation was extremely simple and well defined. At first we had a mica slate in strata running nearly east and west, and dipping at an angle of 75° a little to the west of north. To this succeeded gneiss in irregular blocks, with contorted laminæ gradually changing into regular strata, the dip of which (in the same direction as that of the mica slate), increased until they became perfectly vertical, and then came up the granite, forming the last six miles of the ascent, and shooting up above the pass in such precipitous peaks that the snow which lay thick round their base could find no resting place along the sides.

The road had risen so gradually that it was not until within 12 or 15 miles of the summit that we found the ascent becoming so rapid as to cause the stream which occupied the bottom of the valley to cascade, nor did we ourselves experience any considerable difficulty until we had arrived within a mile of the pass. It then became very steep, and in consequence of a partial thaw of the snow, very slippery and dangerous. The horses fell and appeared much distressed. We were obliged to dismount and proceed on foot, and in so doing we met the goods of a Kafila which had reached the opposite side of the pass, but in consequence of its slippery state had been unable to proceed. A fresh supply of beasts of burden had been collected on this (the south) side, and were waiting below while the goods were being transported over the summit on men's shoulders. As this was on the 19th October it will serve to give a fair idea of the early period at which this pass becomes impracticable. We learned from the persons employed in collecting toll that in ten days more at furthest it would be finally closed by the snow, after which time no Kafila could venture. The reports of the natives had informed us the persons ascending this pass were frequently seized with giddiness, faintness, vomiting, and the other symptoms usually described as occurring at considerable elevations, and though we ourselves experienced nothing of the kind, yet we see no reason to doubt the general correctness of the story, as we estimated the total height of the pass as little inferior to that of Mount Blanc. This is a point we regret exceedingly we had not the means of determining in any precise mode. A thermometer which we had brought with the intention of ascertaining the boiling point of water on the summit was unfortunately

broken on our first day's march, and a barometer was too cumbersome and ostensible an object for persons wishing to avoid observation. However from calculations made by Lieut. LEECH (to whose survey I refer for all topographical details), respecting the rates of ascent at portions of the road, we felt inclined to conclude that the total height could not be less than 15,000 feet, and comparisons which I have subsequently been able to make with other passes in the same range, the height of which I ascertained, afford me assurance that this is by no means an over-estimate.

We searched in vain on the top for the *Kirm i barf* or snow-worm, the existence of which is confidentially affirmed by the natives who accounted for our want of success by saying that fresh snow had fallen, and that the worm was only to be found on that of last year. In that case its existence at least on this pass must be extremely limited, as it would be hard to name a month in which snow does not or may not fall here.

At the time of our visit the snow, which on the southern face extended in any quantity to a distance of not more than four or five miles, on the northern, reached eighteen or twenty; and at a subsequent period, November 9th, when I made an attempt to go into *Turkistán* by the pass of *Sir-Alang**, and met with no snow until within ten miles of the summit, it actually on the northern face extended 60 miles or nearly four days' journey. This is a fact which forcibly arrested my attention as the reverse is well known to be the case, in the *Himálaya* chain where snow lies lower down on the southern face than on the northern, to an extent corresponding with 4000 perpendicular descent. But the *Himálaya* and the *Hindu Kúsh* have the same aspect, the same general direction, lie nearly in the same latitude, and in fact are little other than integral parts of the same chain. The local circumstances however connected with each are precisely reversed. The *Himálaya* has to the north the elevated steppes of central Asia, and to the south the long low plains of Hindustan. *Hindu Kúsh*, on the other hand, has to the south the elevated plains of *Kábul* and *Koh-i-Dáman* between five or six thousand feet above the level of the sea, while to the north stretch away the depressed, sunken and swampy flats of *Turkistán*; *Balleh*, according to Captain BURNES, being only 1800 feet, while *Kunduz* at which I am now writing is by the boiling of the water† not quite 500 above the surface of the ocean.

* The upper district in the *Parwán* valley is called *Alang*; the mountain pass over it *Sir-Alang*; *Sir* simply meaning head or top.—Mr. ELPHINSTONE writes it *Sauleh Oolong*.

† The mean of three thermometers which had been carefully boiled and registered at the sea level.

I should mention, that since commencing this report I have been agreeably interrupted by an invitation in my professional capacity, to the court of MEER MINAD BEY, the chief of *Kunduz*, in accepting which, anxious to explore a new route, I first in company with Lieut. WOOD, N. I. attempted the valley of *Parwán* and pass of *Sir-Alang*, but being repelled by the depth of snow and a violent storm which came on just as we had reached the summit, we were obliged to return and go by the road of *Bámian*. In this way I have been enabled considerably to extend my acquaintance with the chain of *Hindu Kúsh*, and shall therefore venture one or two observations further respecting it. A core of granite, and resting on it a deep bed of slate, are the prominent features in its structure. The direction of those as well as of the chain itself is generally from east to west, and as a consequence of this its largest and most open valleys will naturally lie in the same direction, while the steepest ascents will be met with in proceeding from south to north. This *â-priori* induction is perfectly confirmed by my experience. The pass of *Sir-Alang* and the pass, as it is called par excellence, of *Hindu Kúsh*, are both met in an attempt to proceed north, and the roads leading to each are for wheeled carriages perfectly impassable, while the vale of *Ghorband*, which runs east and west through the heart of the mountains for thirty or forty miles, would admit of a coach being drawn the greater part of the way; and the *Bámian* road, which has in every part been traversed by heavy guns, is so nearly in the same direction that *Hajighát*, the point at which it turns the extremity of *Hindu Kúsh*, though 80 miles in a direct line from *Kábul*, is according to Lieut. WOOD's observations, but ten miles north of the latitude of that city*.

The granite that forms the summit of the entire ridge is from the pure whiteness of the felspar and the glossy blackness of the hornblende of a very beautiful appearance. A peculiarity was observable in its structure where we first reached it, which I do not remember to have seen before. The hornblende had become so collected in patches through the rock that the whole looked as though it were a conglomerate containing dark-colored pebbles of a previous formation, nor was it without a closer examination that I was able to satisfy myself as to the real nature of the fact. These concretions were always of a spheroidal form, varying in size from a diameter of two or three inches to a foot and upwards, and evidently possessed of superior powers of resistance; for in cases where the mass of the rock had suffered from wea-

* See Lieut. WOOD's survey for this and all other topographical details alluded to on the *Bámian* and *Sir-Alang* roads.

thering or been fractured by some external force, these were frequently seen uninjured and protruding in rounded nodules beyond the general surface. A similar fact, if I mistake not, has been noted by M. BRONGNIART as occurring in a granite of Corsica, and taken in connection with HALL's experiments on the fusion and subsequent refrigeration of basalt, it forms a most interesting link in the chain of evidence which goes to connect granite with rocks of undoubted igneous origin. This same peculiarity of mineralogical structure was again remarked by me when I came on what I thence conclude to be part of the same outbreak of granite (though at a somewhat diminished elevation), between *Agrabad* and *Saighan* on the road north of *Bámian*, and it is not a little remarkable that it was here accompanied by an almost basaltic arrangement of the rock. This is so evident that Captain BURNES in his former journey, viewing it merely with the eye of a traveller says, "Cliffs of granite blackened by the elements rose up in dusky but majestic columns *not unlike basalt*." Next to the granite lies the great slate formation I have mentioned, and which must be considered as including gneiss, mica and clay-slate of numerous varieties, with chlorite and other subordinate slates, as well as veins of carbonate of lime and quartz, the latter sometimes attaining a thickness of two or three hundred yards, though more frequently from a few inches to two or three or four feet. Of all these the gneiss appears to occupy the inferior position though this is by no means constant, on the contrary every possible alteration may be found amongst them. The formation is of very great extent reaching in length from *Attok*, where we first came on it, in the form of black roofing slate, to the longitude of *Bámian*, 100 miles west of *Kábul*. It probably extends much farther, but I speak only of what I have seen.

Its mean breadth may be safely stated at between twenty and thirty miles, at least three perfect sections which I have made of it were all fully of that extent. It runs in the first instance north of the basin of *Pesháwar*, hard, blue, non-fossiliferous limestone*, which we had traced upon it from *Hasan Abdul*, parting from it at the *Gidergalla*, and going round to form the southern edge. It is then continued north of the basins of *Jalálabád* and *Kábul*, sending down the two southerly deflexions or outlying ridges which mark their ancient margins, and which we traversed by the *Khaibar* pass, and that which leads through *Tiyan* to *Balkh*, distances of thirty and twenty-five miles respectively. A smaller slaty ridge separates *Kábul* from the plain of

* The same Dr. FALCONER informed me, which from its being so generally found along the base of the *Himálays* chain, is usually termed sub-*Himálays*.



Koh-i-Dáman; and when you have arrived at the summit of this and attempt to go north you again meet with this same slaty belt of thirty miles in thickness, which must be traversed before you reach the granite core of *Hindu Kúsh*. In short to attempt a generalization more extensive perhaps than I am strictly warranted in offering, though derived from many sections in various directions, I would say, that an observer in passing south, from the top of *Hindu Kúsh*, to the parallel of *Kálabágh*, would see first a core of granite with coating of slate, as in the grand mountain chain; next a core of slate with a coating of limestone as at *Attok* and *Khairabád*; then ancient hills of limestone, hard, blue, and non-fossiliferous, as in the ridge between *Pesháwar* and *Kohat*; then a core of more modern limestone (fossiliferous) with a coating of new red sandstone as in the hills south of *Kohat*, and then would find himself amongst aluminous clay, sulphur, gypsum, bituminous shale and rock-salt which occur near *Lachi*, *Ismáel Khail* and *Teri*, and are thence continued south to the parallel I have mentioned terminating the groupe.

Respecting the slate I shall only add that north of the *Kúsh* it appeared to be by no means of the same extent or importance. After passing the granite I have mentioned at *Saighan*, I again came on it; but it did not exceed four or five miles in breadth, and its place seemed occupied by silicious sandstone and fossiliferous sandstones which here are of immense depth; as however I have rather turned than crossed the ridge in my way to *Turkistán*, I have not examined it at each side and under similar circumstances.

Subordinate to the slate formation, limestone both primitive and secondary occurs. The former in vast cliffs overhangs the upper part of the valley of *Parwán*, and exhibits numerous and large natural cavities, in one of which the water of the valley is engulfed and does not re-appear for a distance of two miles. The general color of the limestone here is of a light gray and striped, but masses of it which have fallen from above and lie in the water-course are often of a dazzling whiteness. I cannot say I met with any of this same formation in my way up to the pass of *Hindu Kúsh*, but an extensive limestone formation which I shall have occasion to notice again, is to be found in the *Ghorband* valley and affords a matrix in which occur ores of antimony, iron, and lead. Still further west on the *Bámíán* road near *Jubrez*, I again met with this same limestone, grey and crystalline, in vertical strata, and running east and west, and I learned that immediately to our south in the hills round *Midan* it affords quarries of white marble, which it was further said might be had along the back of the whole range west to *Herat* and south to *Kandahár*. At the former of these places it has been worked

from time immemorial, but at *Kábul* its existence was unknown until the days of the emperor *SHAH JEHÁN**, to whom it was disclosed by a *Heráti* stone-cutter, when he was occupied in the pious task of erecting a mausoleum to his great progenitor *BABER*. The marble for the mosque and tomb of this structure which still exists, though sorely frayed by time, was brought at immense expense from *Delhi*; but the marble pavement, as well as the materials for the enclosure that surrounds the whole, were in consequence of the *Heráti's* suggestion derived from the quarries of *Midan*. The marble is not equal to that of *Delhi*, but still has a pure color, an open crystalline texture, and is commended by the workmen as yielding readily to the chisel. From the unskilfulness of the workmen employed in raising it, large slabs are with difficulty procured, and in consequence the price is high, four rupees being charged for a slab, a guz† square, in its rough state at the quarry.

In this part of its course (near *Jubrez*), the limestone alternates with mica and clay-slate, and a stratum of it again occurs a few miles further,—one at *Sir-cheshmeh*. It is not more than a mile or a mile and a half in breadth; but it suffices to give birth to the beautiful and abundant spring from which the place derives its name (*Sir-i-cheshmeh*—literally, fountain's head), and which forms the true source of the *Kábul* river. Twenty miles further on, between *Gardan-i-Dewan* and *Gulgahni*, limestone once more appeared in the form of a very thin vein, about 150 feet in breadth, perfectly conformable with the strata of slate which enclosed it: and here again it threw up a spring which, however unlike the former, was deeply impregnated with iron saline matter, and abundance of carbonic acid gas, that caused the whole to effervesce as though it were boiling. This spring has many medical virtues attributed to it by the natives, and is extensively used as a tonic, particularly for impaired powers of digestion, to which I have no doubt it proves serviceable. Its temperature was 51° Fahr. which probably is somewhat below its natural standard, inasmuch as it was surrounded at the time of observation with melting snow. The temperature of the well of *Sir-chashmeh*, nearly in the same parallel of latitude, I had ascertained two days before to be $54^{\circ} 5'$, and another well also from limestone near *Agrabád*, half a degree further north, I found to be 54° .

I would here remark that the temperature of wells, as generally taken without reference to the formation in which they occur, must needs be a most imperfect, indeed erroneous, method of approximating

* My informant said *HUMAIYUN*, but as the inscription on the tomb shews it to have been erected by *SHAH JEHAN*, I have transferred the story to him.

† About three feet English.

to the mean temperature of the place, inasmuch as different rock formations, like different metals, vary much in their power of conducting heat. Thus, a well at *Pesháwar* gave me a temperature of 64° , while one at *Attok*, almost under the same parallel of latitude and at the same altitude above the sea, was as high as 78° , the thermometer at sunrise in each case standing about 80° . But, the well at *Pesháwar* was in loose clay, mixed with vegetable mould, a notoriously bad conductor of heat, while that at *Attok* was in hard black slate, which would thus appear to have a very different quality. Again a well at *Agrabad* in limestone, latitude 35° north, shewed a temperature of 54° Fahr. while another in slate a few miles further north, stood at 48° , the altitude of both being nearly equal, and the thermometer at sunrise below the freezing point; so that in this instance also, the slate would appear to have had superior powers of conduction. To pursue this, however, would lead me too far from my present subject, besides it is time I should come down from the top of the mountain, which we did, though not until we had gratified our curiosity with many a longing glance down the snow-clad vale that led towards *Turkistán*, and indulged our loyalty in a libation to the health of our youthful queen as the first of her majesty's subjects, indeed we may add of Europeans, who had succeeded in surmounting this celebrated range.

We now turned our attention towards the vale of *Ghorband*, the opening of which, distant about 14 miles from the plain, we had noticed in our upward course, threading off to the south of west so as to stand nearly at a right angle with the pass we had travelled, the general lie of which was a little to the west of north. And nothing could be more striking than the difference between the two valleys. The one narrow, rocky, and uneven, with an average fall of 200 feet per mile, so that it was impossible it should even have contained any other waters than those of a rapid headlong torrent, while the other, that which we now entered was wide, level, and fertile. The primitive rocks had retired to a distance of from one to three miles, and within them was deposited a secondary row of small rounded hills consisting of conglomerate pebbles and clay, and horizontal strata of fine mud, such as could only have been collected during a long series of years from the tranquil waters of a scarcely moving lake. Along such a formation we travelled for about 15 miles, the hills I have described generally lying to the south of the road, while the *Ghorband* river, of a respectable breadth and not in all places fordable, run close along the edge of the slate which descended in steep cliffs on our north. But on reaching *Sujitgarh*, the hitherto uniform tints of the mountain were seen to be varie-



gated with red, green, and ashen grey, which on examination we found to be produced by ochre, red, indurated clay, decaying green stone and strata of volcanic ashes. These indications of ancient volcanic action, and along with them, efflorescence and sheets of sulphate of lime, the deposits of springs which had whitened large tracts on the side of the range, extended along westward, as we continued our course to *Chandi*,—the volcanic indications being generally at an inconsiderate elevation, and in most instances capped by conglomerate or beds of clay to a depth of 50-200 feet. The valley we were told, stretched away west and southwest, until it nearly reached to *Bámian*; but the upper end of it was inhabited by the *Shaik Ali*, a lawless tribe of *Huzaraks* who acknowledge no ruler, and rob every one that comes within their grasp, so that for a long series of years, the road has been closed to the traveller and the merchant.

We were therefore obliged to terminate our researches at *Chandi*, but it gave me no little pleasure, on a subsequent journey, to recognize the very same volcanic indication with basalt, and anzodaloid superadded, in the vale of *Lohuk*, which is distant about 40 miles southwest of the point where we were now turned back, and to be able to trace these indications through *Topclie* up to *Bámian* itself, and finally to identify by its mineralogical characters, as well as by its geological connections, the conglomerate in which the caves of *Bámian* are scooped, and its gigantic idols carved, with the conglomerate in the vale of *Ghorband*, in which we now proceeded to examine a more extensive and more useful excavation. This was a lead mine which had been worked in the time of the Chagatais, but which, from the ignorance of the Afghans or the troubles which have so constantly beset them, has been totally neglected, insomuch that the inhabitants of the neighbourhood were perfectly unaware of its nature, and viewed it with a sort of superstitious reverence, as a relic of some mysterious folk of former times. They even made some difficulties about shewing us the entrance, and when they understood our intention of going in, earnestly attempted to dissuade us; a few agreed to accompany us as torch-bearers, though the greater part shook their heads at their rashness. Having obtained a good supply of oil, and taken a compass that we might be sure of our way back again, we commenced our under-ground exploration at the auspicious hour of noon, on the 22nd October, 1837.

The mine is known by the name of *Feringal**, is situated at the

* In an ingenious paper on the site of Alexandria ad Caucasum, I observe Mr. Massoff wishes to appropriate this as the cave of PROMETHEUS. I am sorry to deprive him of it, especially for so ignoble a purpose as to convert it into a lead

upper part of the district of *Churdé*, about thirty miles from the entrance of the valley of *Ghorband*, and on the side of a hill facing the east, at an elevation of about 250 feet above its base. The hill is composed beneath of quartz rocks, above conglomerate, and between both is a thin, schistose layer, which, as well as the quartz, appears to dip away rapidly to the west. The excavation is entirely made through the conglomerate, and descends to the depth of one hundred feet perpendicular before it reaches the ore, which is a galena or sulphuret of lead extremely rich and valuable. The galleries have been run and shafts sunk, with a degree of skill that does no little credit to the engineering knowledge of the age; but I am yet at a loss to understand what could have induced them to sink a mine on the spot they have chosen, as there is not the slightest external indication that I could perceive of the presence of mineral in the hill; nor was it until they had mined to 100 feet perpendicular descent and an actual distance of more than half an English mile that they came on the ore. Perhaps had I been able to get to the back of the hill I might have found the mineral cropping out there, still if that was the case, why was the excavation not made at that side? One thing is evident that the works were commenced on knowledge and principle, not on blind chance; for on arriving at chamber No. 1, a regular shaft, two feet square, and eleven feet deep had been sunk, and not finding the ore, they continued their gallery about forty yards, further to chamber No. 2, where the ore actually exists. Now at a first attempt (for there was no previous shaft sunk), to reach so very near their object as six or eight feet, which was the total difference in level between the bottom of the shaft and chamber No. 2, shewed an acquaintance with the lie of the mineral and the level at which they had arrived that could scarcely be exceeded in the present day. By the kindness of my friend and fellow-traveller, Lieut LEECH, I am enabled to annex a plan of the works and view of one of the chambers, which will at once afford a clear explanation of the whole, and save the necessity of entering into further details*.

The galleries were in some places so low that we were obliged to crawl on all fours, and this, added to the heat and smoke of the torches and the quantities of dust which we knocked in our progress, rendered our task not a little fatiguing, and at times almost threatened us with suffocation. The dryness of the mine was so perfect that putrefaction mines, but en revanche, I can offer him the cave of TALAGUD, (mentioned in a subsequent part of this paper,) which being a natural excavation will probably suit him better. Major WILFORD is for having the cave of PROMETHEUS at *Auk-Serai*, to which I know of but one objection, that there is no cave there.

* This will be forwarded hereafter, not having come to hand.

seemed almost at a stand still. One of the human skulls which we found, had the scalp and hair attached to it, in a good state of preservation, and a porcupine which lay at the bottom of the shaft, though evidently long dead, was almost entire.

The only living animal in the excavation was a bat, (*Rhinolophus*), which I have preserved; but the quills and other spoils of porcupines, with a great heap of their dung shewed this to have been a favorite resting place with them for many generations. The remains of oxen and sheep which occurred, had probably been taken down for the purpose of feeding its human inhabitants in former times, and this was rendered still more likely, from the circumstance of the horns having been sawn off the heads of the rams; such a practice obtaining even to the present day, the object being to place on some rustic shrine (*zearut*), to which they are considered an appropriate offering. Half-burnt blocks of timber were in some of the large chambers, but we did not succeed in finding tools of any sort.

From the number of galleries we had to examine on our passage downward, before ascertaining the right road, we were more than two hours in reaching the one, but our return only occupied 20 minutes. We did not reach the extreme limit of the excavation, as the fear of our oil being exhausted compelled us to limit our researches. The total time we remained under ground was a little short of 3 hours. We returned to the external world at 5 minutes before 3 of P. M. and found nearly the whole population of the neighbourhood assembled to witness our resurrection. We retraced our steps the same evening to *Kinchak*, immediately at the back of which is a mountain, from which antimony is procured in abundance. The formation is black slate, and the ore is on the surface, so that it requires no further description.

Murdar sungan, ore of lead, I have not ascertained of what nature, and my specimens are at *Kábul* while I am writing at *Kunduz*, occurred in the valley under *Kinchak*, and was also to be found on our way to *Hindu Kúsh*, under the village of *Káshim*. The ore is crystallized, and is generally picked up in lumps at the bottom of the valley, being distinguished as I was told, by its property of drying with great rapidity, so that the usual time of gathering it is after a shower of rain when all the other stones are wet. The mine of it is not known, but certainly must be very near, as these lumps are got in great abundance, and are said by the natives to be brought down by the stream, the source of which is, at most, but 3 or 4 miles distant.

At *Kinchak* and generally through this district, the slate was found reposing on quartz rock, which in other parts of the range seldom ap-

peared. The slate was in many places black and crumbling, (a variety described by MACCULLACK,) and looked as if altered by fire.

In a limestone hill, west of *Fuligird*, occurs another mine of antimony like the former on the surface, and on our way to visit this, we unexpectedly hit on a very magnificent natural cavern, which we explored (having sent back for torches), to the distance of three or four hundred yards; but without finding bones or indeed any thing to reward us, except the sight of some very large and transparent stalactites. The cavern was situated almost on the summit of the hill, 2000 feet above the *Ghorband* valley, which with its river now lessened to a silver thread, and its gardens of apricots, mulberries, and almonds, in their autumnal livery, looking as though they had been painted on the lofty and perfectly barren mountains, which every where towered above them, had a singularly beautiful and almost magical appearance.

This hill is based on quartz rock, between which and its limestone cap intervenes a bed of decaying mica slate about 500 feet in thickness. This has a gentle dip (10°) towards the southwest, and the limestone, which is grey, and crystalline, lies conformably on it. The mouth of the cavern is marked by a wild almond tree which grows over it, and seems to spring from the bare rock. There is a second opening about 100 feet lower down, but the rock is so precipitous that this can only be approached through the cavern. Iron ore occurs so abundantly through the entire range that I have thought it unnecessary to particularize its localities. The richest I have seen is the black iron ore near the pass of *Hajeeghuk*, where it forms entire hills by itself; but from the difficulty of carriage and total want of fuel its value must be considerably diminished.

Copper is not to be found in the parts which I have visited, all the specimens brought to me were from the neighbourhood of *Bajour* north of *Pesháwar*. They were principally malachite and peacock ore, and seemed rich in metal.

I heard of the existence of lapis lazuli in the vicinity of *Fuligard*, and sent a man to search for it in the direction indicated, but he returned unsuccessful.

Zinc in the form of its effloresced white sulphate, known here by the name of *záh*, occurs generally through the volcanic region I have described, as do also sulphur, sal-ammoniac, ochre, and nitre. There is a salt spring at *Nimakan*, which lies between *Ghorband* and *Kairshana*; but salt for domestic purposes is generally brought from near *Balkh*.

The influence of petrifying springs has been extensive in this district; some of them are still at work, others closed up by their own deposits.

In the neighbourhood of *Lohuk* they were particularly abundant, and in one place, the beds cut through by a torrent shewed a thickness of 50 feet, the individual layers not exceeding 1 to 3 inches.

On our way back through the plain of *Koh-i-Dáman* we paid a visit to *Reg-rowan* (the flowing sand), which has long been an object of wonder, and veneration to the natives. It is simply a bed of loose sand on the slope of a hill, which if set in motion by any cause, as by the wind or by a man, rolling down from the top, produces lengthened sonorous vibrations not unlike those of the string of a bass-viol. The fact is mentioned by *BAËR* who compares the noise to that of drums or nagarehs, and a corresponding fact has been noticed as occurring at *Jubbul Tor* on the shore of the Red Sea. On my way into *Kábul* I noticed two other similar though smaller collections of sand on projecting hills, and in all cases these projections faced the south. The sand is such as would proceed from the disintegration of granite consisting chiefly of quartz and hornblende, but there is no rock of the kind nearer than the opposite side of the plain. A west or southwest wind would certainly have no difficulty in transporting it this distance, and if so brought it would naturally collect on the projections I have mentioned, which are at right angles with the general lie of the hill-range here, and form so many rocks or corners. I am hardly as yet justified in making any inference respecting the frequency of such winds, but I may state the simple fact that on referring to my register for the 20 days, I spent in *Kabul*, September 20th to October 10th, I find that during 14 days of them, these winds prevailed.

We returned over the *Dusht i Baghrám* which antiquarians seem to have fixed on as the site of Alexandria ad Caucasum. The number of coins found here principally Grecian and Cufic, is immense. Mr. *MASSON* last year procured no less than 35,000; and during a halt of a few hours, two children employed by Lieutenant *WOOD* picked up from 20 to 30.

On my arrival at *Kábul* I had the gratification to find a message awaiting me from *SHEER MUHAMMAD MINAD BEG* requesting my professional attendance on his brother who has long suffered from an eye complaint.

The consequence is that I am now with Captain *BURNES*' permission passing the winter in *Kunduz*, while Lieutenant *WOOD*, who accompanied me, is on his way to investigate the source of the *Oxus*.

III.—*Epitome of the Grammars of the Brahuiky, the Balochky and the Panjābi languages, with Vocabularies of the Baraky, the Pashi, the Laghmani, the Cashgari, the Teerhai, and the Deer dialects. By Lieut. R. LEECH, Bombay Engineers, Assistant on a Mission to Kábul.*

GRAMMAR OF THE BRAHUIKY LANGUAGE.

This language is spoken throughout the Khànship of *Khalàt*, the boundary line of which may be drawn through *Harrand*, *Shall*, *Kokak* and *Kech*, and the district called *Garamsel*; the handwriting is Persian, as well as the letters of the alphabet with the exception of a peculiar *l* something near the Devanāgarī ऌ, and a *t* pronounced with a strong emission of the breath from the roof of the mouth. The Brahuces say that their original country is *Halab* (*Aleppo*), and that a great number emigrated to *Balochistān*, about 20 generations ago, under a chief of the name of *Kambar*, from whom there arose the tribe called *Kambrānees*, now the first in consequence, and in which the Khànship is made hereditary.

Alphabet.

The system of Romanizing adopted is that now generally followed, formed on the Italian pronunciation of the vowels. Besides the Nāgarī consonant the Brahuiky makes use of the Arabic خ and غ, and in using that character the *l* is sometimes pronounced like the last *n* in the French *non*, or the Sanskrit *anuswara*. The cerebrals are marked by a dot under them.

Gender.

There is no termination to express the gender in this language; but a separate word *narrangā* is prefixed for the masculine and *mādaghā* for the feminine, as *narrangā chuk*, a male bird, *mādaghā chuk*, a female bird, and these are only used in order more particularly to define the object, which is never at first mentioned but in the common gender.

Declension of Nouns.

As I consider the word case to mean state, I can no more allow the words "of a horse" to be the case or state of the word "horse" than I would consider one and twopence to be the case or state of a shilling. There is I think accordingly only one case in English, which is the original; and only two in Hindustānī, *ghorā* the original or nominative, and *ghore* the inflected state prepared for the addition of the post positions*.

There is only one case for nouns in Brahuiky, which is the original or nominative as *hulē*, a horse.

A noun is joined to another to form one compound idea in the following ways.

To denote possession *nā* is introduced between the two words as *hulīnā kurra*, a horse's colt.

* The author we think mixes up the notion of grammatical case with inflection. The *casus* or *accident* in which the noun or name of a thing may be placed quoad other things, as whether it be the agent, the instrument, the object, the possessor, or the deprived, may be as legitimately expressed by prepositions or postpositions as by inflections. We do not however feel at liberty to alter the text.—ED.



To denote abstraction *an* is introduced as *viatān asit*, one from two and *hulīān ditar*, blood from the horse ; *ustat duā*, wishes from the heart.

To denote donation *ne* or *e* is added as *dāde yete*, give to him.

To make a noun the instrument of a circumstance *ene* is added, as *zagh-mene*, with a sword, from *zagh*, a sword ; *latene*, with a stick, from *lat*, a stick.

To make a noun the cause of a circumstance *an* is added, as *tapān* from a wound, the original case being *tap*, a wound.

To denote inclusion *tī* is added to the noun, as *Shartī*, in the city, from *shar*, a city ; *jangtī kaskune*, died in battle, from *jang* battle.

Position is denoted by adding *at* to the noun, as *dā Kasarat duzare*, there is a thief on that road, from *kasar*, a road, speaking of a road as a whole, or by adding *ai* as *Kasarai pīrū araghase*, there is an old man on the road, in the limited sense.

To denote approach or direction *ai* is added to the noun, as *I' Haidrā-badai kawā*, I will go to Hyderabad*.

Superposition is denoted by the addition of *ā*, as *hulī ā*, on the horse ; *katā tikhakh*, put on the bed.

Companionship is denoted by the addition of *to*, to the inflected case of the pronouns, as *neto bafar*, I will not go with thee, from *nī*, thou.

Number.

There are some words that remain the same in both numbers, and either the verb must point out to which they belong, or an adjective of quantity ; for instance *hulī* is the Brahuiky for a horse, and horses can only be expressed by the addition of such a word as the adjective many, as "*baz hulī*," many horses ; or by such a verb as are neighing, *tawār ker*, as, the horses are neighing, *hulī tawār ker* ; the horse is neighing, *hulī tawār kek*.

But to conform to old established usage and as the word *hulī* is said by some to have a plural, I subjoin the word, declined through all its cases.

	Singular.	Plural.
Nom.	<i>hulī</i>	<i>hulik.</i>
Gen.	<i>hulinā</i>	<i>hulitā</i>
Dat. & Acc.	<i>huline</i>	<i>hulite</i>
Abl.	<i>hulīān</i>	<i>hulityān</i>

Declension of a Compound Noun.

Sharangā narīna... a good man.

	Singular.	Plural.
Nom.	<i>sharangā narīna</i>	<i>sharangā narīnaghāk</i>
Gen.	<i>sharangā narīnanā</i>	<i>sharangā narīnaghātā</i>
Dat. & Acc.	<i>sharangā narīnaie</i>	<i>sharangā narīnaghāte</i>
Abl.	<i>sharangā narīnaghān</i>	<i>sharangā narīnaghātiyān</i>

* Whatever name may be given to them, the Brahuiki inflections are evidently nearer to the Sanskrit than those of most modern dialects ; and this militates against the derivation of the tribe from Aleppo. Compare the following:—

	Sanskrit.	Brahuiki.
Nominative	S. <i>ah</i> P. <i>āh</i>	S. <i>a</i> P. <i>ā</i>
Instrumentive	<i>ena</i>	<i>ene</i>
Objective	<i>āya</i> (ne for nouns in i)	<i>ai</i> (<i>huline</i> from <i>hulī</i> .)
Ablative	<i>āt</i> (changeable to <i>ān</i> &c.)	<i>ān</i> and <i>āt</i>
Genitive	<i>nah</i> (for nouns in i)	<i>nā</i> as <i>hulī</i> , <i>hulinā</i>
Locative	<i>e</i> , <i>i</i> , or <i>tah</i>	<i>at</i> <i>tī</i>

The accusative or second case alone seems wanting, being supplied by the dative or, properly, objective case. The plural cannot so easily be traced unless we suppose *bh* to be changed to *t*.—ED.

Comparison.

There are no regular affixes for comparison, but the force of the degrees may be expressed in the following manner.

Dà juwàn e	that is good.
Da juwànosite	that is better.
Dà kulàn juwànosite	that is better than all.
Dà edàn juwàn e.	this is better than that.
Dà kul meettyàn doulatmand e.	He is richer than all the Meers.

Pronouns.

Of the first Personal Pronoun.

	Singular.	Plural.
Nom.	I	nan
Gen.	Kanà	nanà
Dat.	Kane	nane
Abl.	Kanyàn	nanyàn

Second Personal Pronoun.

	Singular.	Plural.
Nom.	Ni	num
Gen.	Nà	numà
Dat.	Ne	nume
Abl.	Nyàn	numyàn

Third Personal Pronoun ; proximate-demonstrative verbal, dàd this, Sans. tat.

	Singular.	Plural.
Nom.	Dà	dàfk
Gen.	Dànà	dàfta
Dat.	Dàde	dàfte
Abl.	Dadàn	dàftyàn

Third Personal Pronoun, remote, remote, od.

	Singular.	Plural.
Nom.	Od or o	ofk
Gen.	Onà	oftà
Dat.	Ode	ofte
Abl.	Odàn	oftyàn

Third Personal Pronoun, remote ed.

	Singular.	Plural.
Nom.	E or ed	efk
Gen.	Enà	eftà
Acc. & Dat.	Ede	efte
Abl.	Edàn	eftyàn

Reciprocal Pronoun.

Tenat, self.

	Singular.	Plural.
Nom.	Tenat	self
Gen.	Tenà	of self
Dat.	Tene	to self
Abl.	Tenyàn	from self
	Tenpaten,	among themselves, (àpas men.)

Interrogatives to animate beings.

	Singular.	Plural.
Nom.	Der	who
Gen.	Dinnà	whose
Dat.	Dere	whom
Abl.	Deràn	from whom

The same.
ni der us, who art thou?
num derrure, who are you?

To inanimate objects.
Singular.

Ant	what
Arà	of which

Relative pronoun.

Arà	whichever
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Correlative pronoun.

Hamo that one or the same.

Ara ida ki juvàn, e kane hamo darkar e

Which thing soever is good, that I require.

Pronominal Adjectives.

Amro, what sort, as, o amro bandugh ase, what sort of man is that ; handunos i ut handunos ode, as I am so is he ; nek rupaiye akhadr are, how many rupees are about you ; akhadr ki nî tes namo khadr, i halev, I will take as many as you will give ; dohko zebou zaif as khanat bazar-tî, such a beautiful woman I saw in the bazar ; kî wah wahna zaif as asak handanos asak ki lalanâ phiulî, oh ! such a woman the image of a rose.

Days of the week.

Jumà	Friday	Shishambe	Tuesday
Awal i hafta	Saturday	Char shambe	Wednesday
Yek shambe	Sunday	Panj shambe	Thursday
Du shambe	Monday		

Cardinal Numbers.

One	asit	Twenty	bist
Two	irat	Twenty-one	bist o yak
Three	musit	Twenty-two	bist o do
Four	châr	Twenty-three	bist o sai
Five	panj	Twenty-four	bist o char
Six	shash	Twenty-five	bist o panj
Seven	haft	Twenty-six	bist o shash
Eight	hasht	Twenty-seven	bist o haft
Nine	nuh	Twenty-eight	bist o hasht
Ten	dah	Twenty-nine	bist o nuh
Eleven	yâzda	Thirty	see
Twelve	duâzda	Forty	chil
Thirteen	senzda	Fifty	panjâh
Fourteen	chândâ	Sixty	shasht
Fifteen	pânzda	Seventy	haftâd
Sixteen	shouzda	Eighty	ashtâd
Seventeen	havda	Ninety	navad
Eighteen	hazda	Hundred	Sad
Nineteen	nozda		

Ordinals.

Awal	first	Miskhâli
Elo	second	Nem
Mustimiko	third	Shashai
Chârmiko	fourth	Panjpâ
Panjmiko	fifth	

Fractions.

a quarter rupee
half
three quarters
one and a quarter
(lit. five quarters)

CONJUGATION OF THE VERB SUBSTANTIVE.
Present tense.
Singular.

1st person	I' asitut	I am alone
2nd	Ni asitus	Thou art alone
3rd	Od asite	He is alone

Plural.

Nan asitun	We are one
Num asiture	We are one
Dâfk asitur	They are one

This is rather an example of the auxiliary verb, asit signifying one.

*Present tense of the verb substantive.**Singular.**Plural.*

I' aret	I am	Nan aren	We are
Ni ares	Thou art	Num areri	You are
Od are	He is	Dàfk arer	They are

1st Imperfect.

I' asut	I was	Nan asun	We were
Ni asus	Thou wast	Num asure	You were
Od asak	He was	Dàfk asur	They were

2nd Imperfect.

I' masasut	I was being	Nan masasun	We were being
Ni masasus	Thou wast being	Num masasure	You were being
Od masas	He was being	Dàfk masasú	They were being

Perfect.

I' masunut	I had been	Nan masanun	We had been
Ni masunus	Thou hadst been	Num masunure	You had been
Od mas	He had been	Dàfk masunú	They had been

Future tense present.

I' marev	I will now be	Nan marev	We will now be
Ni mares	Thou wilt now be	Num mareri	You will now be
Od marek	He will now be	Dàfk marer	They will now be

Future tense literal.

I' marot	I will hereafter be	Nan maron	We will hereafter be
Ni maros	Thou wilt hereafter be	Num marode	You will hereafter be
Od maroi	He will hereafter be	Dàfk maror	They will hereafter be

Imperative.

Ni mares	Be thou	Num marere	Be you
Od mare	Let him be	Dàfk maror	Let them be

*Subjunctive mood.**Preceded by agar if.*

I' masut	If I might be	Nan masun	If we might be
Ni masus	If thou mightest be	Num masude	If you might be
Od masuk	If he might be	Dàfk masur	If they might be

*CONJUGATION OF THE VERB To Ask.**Infinitive or verbal substantive, harraffing.*

I' harraffiva	I ask	Nan harrafon	We ask
Ni harraffisa	Thou askest	Num harrafore	You ask
Od harraffik	He asks	Dàfk harrafor	They ask

1st Imperfect.

I' harraffenut	I asked	Nan harraffenun	We asked
Ni harraffenus	Thou askedst	Num harraffenure	You asked
Od harraffene	He asked	Dàfk harraffenur	They asked

2nd Imperfect.

I' harraffeta	I was asking	Nan harraffena	We were asking
N harraffesa	Thou wast asking	Num harraffere	You were asking
Od harraffek	He was asking	Ofk harraffera	They were asking

Perfect.

I harraffesasut	I had asked	Nan harraffesasun	We had asked
Ni harraffesasus	Thou hadst asked	Num harraffesasure	You had asked
Od harraffesas	He had asked	Dàfk harraffesasú	They will ask

Future Tense.

I' harrafot	I will ask	Nan harrafenun	We will ask
Ni harrafos	Thou wilt ask	Num harrafonure	You will ask
Od harrafo,i	He will ask	Dàfk harrafenú	They will ask

Imperative.

Harraf	Ask thou	Harrafbo	Ask you
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Subjunctive.

Preceded by *agar* if

I' harrafut	If I might ask	Nan harrafuna	We might ask
Ni harrafus	If thou mightest ask	Num harrafude	You might ask
Od harrafuk	If he might ask	Dàfk harrafur	They might ask

Compound Future.

I' harrafiv	I shall have asked	Nan harafina	We shall have asked
Ni harrafos	Thou shalt have asked	Num harrafere	You shall have asked
Od harrafoi	He shall have asked	Dàfk harrafenure	They shall have asked

ADVERBS.

Amú, to-day ; *pagí*, to-morrow ; *pàlme*, day after to-morrow ; *kúde*, day after that ; *kúdramàs*, day after that ; *daro*, yesterday ; *mulkhudá*, day before yesterday ; *kámulkhudá*, day before that ; *kúdir mulkhudá*, day before that ; *ewudai*, formerly ; *manjan*, midday ; *digar* (*tire pare*) afternoon ; *nem shaf*, midnight ; *awal kopàs*, the first pahar ; *irát mí kopàs*, the second pahar ; *mustamí kopàs*, third pahar ; *chàrme kopàs*, fourth pahar.

Dàsà	now	Aráde	where	Chi wakt	when
Gudà	after	Khudk	on this side	Hand on	yes
Dàde	here	Aràkà	whence	A hà	no
Ede	there	Burzà	above	Mat	forsake
Peshan	out	Shef	below	Awal	at first
Fahti	in	Jágai	instead	Zú	quickly
Mur	beyond	Harde	every day	Begá	in the evening
Harrànk	as far as	Iskà	as far as	Asi asi wakt,	sometimes
Madàna	late	Padà	again	Madà	slowly
Musti	near	Aràngi	wherever	Hamengi	there
Chàr màn	on all sides	Moni	opposite	Ràsta pàrán	on the
kundi					right side
Chapá	on the left	Bas	enough	Ha mon	even so
pàrán	side				
Ham	also	Pàráe	instead	Baghair	besides
Gudà	but	Pahnád	success-	Handoan	even so
		pahná-	sively		
		dati			
Mújibat	according	Knear,		Baghar	without
	to	as kanek,	near me		
Beera	merely				

Conjunctions.

Oo, and ; lekin, but ; ki, that ; ede hi nak, go there ; ede himp, do not go there ; pàrak, speak ; pàp, do not speak.

Interjections.

Ade, holla ! armán, what a pity !

VOCABULARY.

Kasar	road	Mon	black
Huch	camel	<i>Kh</i> isun	red
Kuchak	a dog	Piwn	white
Kharàs	an ox	<i>Kh</i> arrun	blue
Beesh	an ass	Smo	bottle green
Pishî	a cat	Pûshkun	yellow
Iragh	bread	Hanen	sweet
Dir	water	Kharen	sour
Tûfak	musket	Be	salt
Zughm	sword	Turund	salt, adj.
Ispar	shield	Nyârî	breakfast
Kûs	coat	Basun	heat
Shalwâr	breeches	Sekhâ	shade
Kherî	waistband	Daspâk	handkerchief
Mochdî	shoes	Dey	sun
Top	hat	Istâr	star
Dû	hand	Nokh	new moon
Nath	foot	Tûbî	full moon
Khan	eye	Billa	bow
Bâmus	nose	Sum	arrow
Bâ	lip	Math	billy goat
Duvî	tongue	Urâ	house
Khaff	ear	Detik	east
Kâtumb	head	Sharo	good
Pishkou	hair	Gando	bad
Rish	beard	Chuk	bird
Barot	mustachoes	<i>Khukho</i>	crow
Baj	back	Gunjishk	sparrow
Mon	face	Dandân	tooth
Kopa	shoulder	Or	finger
Suroch	elbow	Kat	a bedstead
Pup	knee	Daghâr	ground
Zil	nail	Kont	carpet
Pid	belly	Moz	boot
Khad	bosom	Bedî	a boat
Pas	pudendum	Mash	mountain
Rotink	entrails	Pât	stick
Kalakh	cheek	<i>Khâkhar</i>	fire
Mâr	son	Tanâb	rope
Masid	daughter	Bai	grass
Arwat	wife	Darakht	a tree
Eelum	brother	Alû	a fruit
Bâv	father	Zardâlû	a fruit
Id	sister	Shaftâlû	a fruit
Lummâ	mother	Hinâr	a fruit
Tât	paternal aunt	Sûf	apple
Balla	father's mother	Tût	a mulberry
Illa	father's brother	Shahtût	ditto
Zâif	woman	Sinjit	a fruit
Khall	stone	Narghoonch	a fruit
Sandabe	table	Ispedar	a fruit
Kahar	angry	Kamân chol	pellit
Khwash	glad	Khingar	ironsmith
Kharmâ	wolf	Zargar	goldsmith
Khulegha	chittâ	Mollit	milk
Rastar	lion	Aydast	excrement



<i>Khasi</i>	butter	<i>Qudh</i>	clothes
<i>Kharesh</i>	ghee	<i>Nuth</i>	flour
<i>Ghala</i>	grain	<i>Gwazee</i>	diversion
<i>Pirish</i>	cheena	<i>Much</i>	fist
<i>Shal</i>	cloak	<i>Daskalla</i>	glove
<i>Bunga</i>	a ring	<i>Men</i>	mud
<i>Gwand</i>	long	<i>Murú</i>	hare
<i>Murghún</i>	broad	<i>Daghar</i>	kid
<i>Hurr</i>	deep	<i>Sor</i>	lamb
<i>Darich</i>	door	<i>Khâd</i>	ram
<i>Kapàs</i>	cotton	<i>Dragh</i>	false
<i>Kàs</i>	blanket	<i>Junúb</i>	south
<i>Drasam</i>	goat's hair	<i>Bingun</i>	hunger
<i>Sil</i>	leather	<i>Ràst</i>	true
<i>Taho</i>	wind	<i>Kutba</i>	west
<i>Kaskun</i>	dead		

Ornaments of Women.

<i>Dávaní</i>	forehead ornament	<i>Chandan hàr</i>	large necklace
<i>Jumuk</i>	large gold ring	<i>Daswàná</i>	bracelet
<i>Durr</i>	large silver ring	<i>Bàhink</i>	bangles
<i>Phulo</i>	nose ring	<i>Pàdink</i>	anklets
<i>Touk</i>	necklace	<i>Chalav</i>	ring
<i>Tawiz</i>	charm	<i>Khyál</i>	mole or beauty spot

Metals and implements.

<i>Mis</i>	copper	<i>Tál</i>	plate
<i>Brinj</i>	brass	<i>Kudina</i>	hammer
<i>Ahin</i>	iron	<i>Kadsán</i>	wooden basin
<i>Folâd</i>	steel	<i>Joghin</i>	mortar
<i>Surf</i>	lead	<i>Khal</i>	pestle

Trees on the Mountains.

<i>Shorah</i>	saltpetre	<i>Khat</i>	<i>Birudi</i>
<i>Gokudt</i>	sulphur	<i>Apuds</i>	<i>Maqhumba</i>
<i>Pilpil</i>	pepper	<i>Qwan</i>	<i>Peepal</i>
<i>Pil</i>	elephant	<i>Shishár</i>	<i>Kasood</i>

Trees.

<i>Sà</i>	jav	<i>Kotor</i>	<i>Bundi</i>
<i>Brinj</i>	rice	<i>Shámpashtir</i>	<i>Gidpit</i>
<i>Sú</i>	flesh	<i>Drishe</i>	<i>Maimouk</i>
<i>Bedir</i>	stew	<i>Adchin</i>	<i>Manguli</i>
<i>Zad chobah</i>	haldee	<i>Bootav</i>	

The grasses are

<i>Khazm</i>	a deer	<i>Katal</i>	<i>Káshum</i>
<i>Khachal</i>	a mule	<i>Hawe</i>	<i>Gorkáv</i>
<i>Kootakh</i>	hindevána	<i>Pootár</i>	<i>Gwasht</i>
<i>Moochnak</i>	tweezers		
<i>Litik</i>	sail		
<i>Tás</i>	small round pan		

VERBS.

<i>Hinajk</i>	go	<i>Bathmarak</i>	get up
<i>Barak</i>	come	<i>Kháchak</i>	sleep
<i>Toollak</i>	sit	<i>Bashkabota</i>	awake

*Verbs transitive.*

Kunakh	eat	Chattebo	lick
Dir kunakh	drink	Gatalbo	bite
Jang karrak	quarrel	Gulam kar	suck
Tikh	place	Chatetabo	sow
Tor karak	weigh	Langár kabo	plough
Harf hin	take away	Khulibo	fear
Khalbo	beat	Samá kes	guess
Harf bot	bear away	Zindma	live
Khalás karak	finish	Nósa	grind
Halltak	take	Kaha	die
Harribo	rip up	Halmak	run
Halbo hatbo	bring	Hagh	weep
Tawár kabo	call	Harrabit	throw away
Shair khalt	sing	Iletakai	let go
Ilati kai	send	Khalt	play (tune)
Hubbo	look	Makhebo	play (games)
Khafto	listen	Shukár kashe	whistle
Hify	learn	Jakha	cough
Phurka	fill	Hichán	sneeze
Manzil mas	stay	Tufka	spit
Pirakh	break	Piltibo	shampoo
Harribo	tear	Thadbo	cut
Shola	pour out	Tolká halt	weigh
Ety	give	Hisáb kabo	count
Halmaka	flee	Makhebo	laugh
Dirte khalt	wet	Ilebo	leave
Lill	wash	Kháribo	scratch
Swár mark	mount	Múshkbo	rub
Búz halbo	kiss	Redetabo	roll
Nathe murif	kick	Rad kes	forget
Giri nety	tie	Shurú kar	begin
Gum kes	lose	Bashkh yety	distribute
Qáena mala	loosen	Padai yety	give back
Bareme hamp	load	Kwash mar	rejoice
Múgh	sew	Wedhkar	besiege
Hef	lift up	Wrush kar	assault
Tikhá	put down	Arám kabo	stop
Shevma	stoop	Musun kar	upset
Dir kar	melt	Tammá	fell down
Khalbo	kill	Bashmo	get up
Túgh bafak	reel	Burzá kar	open
Tálán kabo	spread	Tafbo	shut
Chatetabo	scatter	Refbo	deceive
Dir chatetabo	sprinkle	Tondá kes	sell
Rasebo	arrive	Halbo	buy
Soqa kar	wrap	Chiring	wander
Kad khalbo	dig	Barám kar	marry
Kabr kabo	bury	Tholif	shave
Tár khalbo	swim	Rai kar, (rawána	dispatch
Neshtár khalbo	float	kar)	boil
Tubí khalbo	duck	Básibo	roast
Dhadbo	land	Sajji kar	fry
Bériai swár ma bo	embark	Bis	

*Phrases and Dialogues.*

Greetings made in quick succession and together by both parties meeting.

<i>Khwai basus</i>	You are well come
<i>Dur khus</i>	Well and happy ?
<i>Mak neduràlcho</i>	Are your sons well ?
<i>Eelumk, nedurà khe</i>	Your brothers are they ?
<i>Kabil nedurà khe</i>	Your family are well ?
<i>Shahar nedurà khe</i>	Your city all well ?
<i>Yar hamrah nedurà khe</i>	Your friends and companions all well ?
<i>Shar durà khus</i>	Are you well and happy ?
<i>Durà khairati hus</i>	The same
<i>Durà khajoadus</i>	Ditto
<i>Shukar ki basus</i>	Thank (God) you have come
<i>Shukar ki nanà uràti basus</i>	Thanks that you come to my house
<i>Ne Khudà hes</i>	God has conducted you here
<i>Haidràwàdnà kasar arà kani</i>	Which is the road to Hyderabad ?
<i>Arà bare barane</i>	What is it 'barabar' to ?
<i>Kane nishan etabo</i>	Point it out to me
<i>E Haidràwàdàe kawa</i>	I will go to Hyderabad
<i>O Kàreme i hech kaparot</i>	I will not do such a thing
<i>Agar num pare numà khataran</i>	If you tell me for your sake I will
<i>kareme kev</i>	do the thing
<i>Dà shaharti nane kukud dūt amoi</i>	Shall I get a fowl in that village ?
<i>Dà shaharnà pin der e</i>	What is the name of that town
<i>Dà shaharti sarkarnà malyat</i>	In that city how much is the govern-
<i>akhadr, e</i>	ment share ?
<i>Dà shaharnà malyat bist panch</i>	The produce of that town is 2500
<i>hazari sàlnà nàno</i>	a year
<i>Hi aut khom aseus</i>	What caste are you of ?
<i>Ee bàz panth karinut dan dangær</i>	I have made a long march and am
<i>nut</i>	tired
<i>Huliyà swar masut dam datwat</i>	I was on horseback and am not tired
<i>Ne marare</i>	Have you a son ?
<i>Ne masadare</i>	Have you a daughter ?
<i>Bàz sàlamarek paidà masuni</i>	Has she been born many years ?
<i>Duazda sàlnai paidà masuni</i>	She was born twelve years ago
<i>Miranà bàz lashkar are</i>	Is the army of the Ameers great ?
<i>Dà hulinà bàbà akhase</i>	What is the price of this horse ?
<i>Eelum panj sadat soudà karenut tenà</i>	Brother, I have sold the horse for
<i>huli e</i>	five hundred
<i>Jwàn karenus ki sonda karenus baz</i>	You have done well in selling it,
<i>masuni</i>	it is a large sum
<i>Huliyà chist kar swar marak</i>	Mount quickly
<i>Sai mares kasarut duz bàz are phulor</i>	Take care, there are many thieves in
<i>ne</i>	the road, they will rob you
<i>Dà kasarut dún are ee dir kimif</i>	Are there wells in that road that I
	may drink water ?
<i>Barisa ki kàn</i>	Are you going or how ?
<i>Bafar neto</i>	I will not go with you
<i>Bariva ee tune</i>	I will go with you
<i>Kane ruskhat yeti kàv</i>	Give me leave I will go
<i>Rupinà ber bàz tisa</i>	Many bers for a rupee
<i>Khivàja tàbare</i>	It is enough
<i>Bàz tyesa dà bertyani</i>	What's the price of these bers ?
<i>Panj sark tev</i>	I will give five sarks

Ilum aidane mubarak mare imàn	Brother, a pleasant eed to you, may
salamat mare òr huje	you be happy
Nà, àid mubarak mare	And a happy eed to you
Dàde dah rupe, i yete	Give him ten rupees
Asi monu paisas ti farata	I will not give a monu
Añtai tifes ata magari uà bàvnà mālàn	Why wont you give, will it be out of
idà as kaik	your father's property, that you
	refuse to give?
Obandagh narà hinà	That man run away
Obandagh jangtì kaskune	That man was killed in battle
Dàde ainú mīr benifene khalat	To-day the meer presented him with
	a dress of honor
I' Hydrabàde Khanànūt	I have seen Hyderabad
I' Hydrabàde khautanut	I have not seen Hyderabad
Khalt halkunī pidatī kanà	I have a stomach ache
Ainú basunī	To-day is hot
Ainú yakhi	To-day is cold
Ghalaghkà púskunú	This food is fresh
Ahà púskun afas	No it is not fresh
Dà ghalaghàk wadern à o	This food is of many days
Ahà bakhtàwar irà tūe dà ghalaghàk	No I reaped it two months ago you
harfenut bakhtàwar	bakhtàwar
Dà id à ase khisunú	This article is of gold
I'lum arà jàganà khisun ase	Brother of what country is the gold?
Mekuràná khisun ase, yà Candàrnà	Is it Mekran gold, or is it of Canda-
ite	har?
I'lum eta Khudà chon oe arete jwàn	Brother, God knows that but it is
osit	good
Dà rupainà gidà ase	This is a silver article
Kàtume pàlif bo sholbo	Wash and shave my head
Kanà bûte joḍ karene sàhel	The gentleman has drawn my pic-
	ture
Nabisht kabo dà kàghazàte	Write on this paper
Gudàte sil	Wash the clothes
Piun katà	Bleach them
Shahartī rasengà khairat	I arrived safe at the village
Peshan hina gum marak	Get out, do away with yourself,
	fellow
Bràhuinà hite hich tiprà	I don't understand a word of Bra-
	huiky
Rupeie halitak	Take the money
Sogou karak	Hold fast
Tehanto (pàn sàñ) sikhakh	Keep them to yourself
Huliàn shef mar	Get down from the horse
Bishhai swàr marak huli reshe	Get on a donkey, the horse has a
	raw
Khulisa kaneyàn churokne kàr	You fear me so, that you have wet
	yourself
Daryàv kharàb masune, dir ta kutàne	The river is spoilt, the water has
machit masune	gone out, it has become shallow
Dà nà saile karak	Look at the fun
Kane kàrem urē man sail kapana	I am busy, I can't look
I' khwàri bàz khaanànūt	I have seen great trouble
Chiràghe lagaf	Light the candle
Chiràghe kasif	Put the candle out
Daryàv wahesa hinak mulkàte àbàd	River! flow on and make the coun-
karak gharibàtà ofk khush marer	try fertile that the poor may be
	happy

Bàz sàl zind mares
Mathusalam hasht sad sàl zindmas
qudà kask
Pir dase i pàlasut
Gudàti kanà helbo de, ai
I' Hydrabàdte iràtù masunut
Iràtù Hydrabàd tì aut karinus

Brahuinà boli harfet dāsà Brahui
masut
Dà shaharte jwàno gudh paidà maroi

I' kodì as viat halev
Dev khoràsanài kharid kanin ki
Tù asikà hukmat Khudànà nà nak
dùk jođ maror
Ainù khed karenene
Dà tütak iratù àngud bisir

I' Sehwàniskà kàv pìranà zyàratàe
bedinà mehnat akhadr,e

O,hite i bingasut
Dà pulle gand kashe
Od ichànà
Sàheb kane kula kalkune
Pùshad karenene
Kukudàtine jhale nanà ghalaghàte
kungo
Irà rupei kaneàn khwàya
Roma ghàtine shola balun basunù

A Brahuiky Song.

Gori marev o marù o lal

Netù barev o chunakà jawàn

Pàs bafes o marù o lal
Tes tifes o chunakà warnà
Bàmbà,e salip o gul i lalah
Ràndi khano i,ne o chunakà warnà
Tenà karo i,ne o gul i sùsan.

2nd.

Oh zabù nane dir yety
Nà dik hanenù nane dir yety

Godì gidàna nane dir yety

Nàdik phudenù nane dir yety

May you live many years
Mathusalem lived for 800 years, then
died

The rain has fallen I have got wet
Put my clothes in the sun
I was two months in Hydrabàd
What did you do for two months
at Hyderabad

I have learnt the Brahuiky language
and now I am a Brahui

Is there any good cloth produced in
that village?

I will take a score
I take them to Khoràsàn to sell
In a month by the blessing of God
your hands and feet will be well
To-day you are perspiring
That mulberry will ripen in two
months

I will go to Sehwan to pay my devo-
tions to Peer, what is the hire of
a boat?

I have heard that circumstance
Smell that flower
He sneezed
Sir, I have a cold
My nose is running
Catch that bird it has eaten all my
grain
He asked me for two rupees
Cut your hair, it has grown long

Translation.

He.

I will move as a censer round thee,
my precious little ruby!

She.

I will come with thee, oh fair and
loved youth!

He.

You say yes, but perhaps you won't
come, my precious little ruby;
Now you will give, now you won't
give, oh beautiful young maid.
Don't stand on the terrace, my bright
tulip,
The old bawd will see you, oh beau-
tiful young maid!
She will make you hers, O lovely lily!

2nd.

Oh zabu! give me a little water,
Water from those hands must be
sweet;
Give me a little water, O mistress of
(thy slave's) house, give me a
little water,
Water from those hands must be cool,
Give me a little water.

Story in Brahuiky.

Châr bandagh hinâr hamrà masu ; asîsargar, asitrâkân, asi darzi, asi fakir : dà ka gidà darer hinâr hukmat Khudànâ hinâr sahrâ seti hinâr-muhîbo khofanâ jâga seti, shâm tamâ-tâ. Hesur pât dir Khâkhare lagafer iragh biser kungor tûsûr maslat karer tenpaten salâ kaning juwâne dâde pâspâni khabardâri kaning juwâne kul pârer juwân toukal Khudànâ awal ko wâr dinâi trâkan pâre kanai pârer juwân ilunk awal ko wâr nâ,e tûlltak nan harmusit khâ-chîna zangar pâre nâ wâr pûrav mas kane bashkes pâre juwân nimkhâch-bo, trâkândamastûs tugh hallt Dânge henge hurâ hamode bundas tamâsas dûshâghâ teshei hawâlamas zâif as jod kare handâ pâtân onâ wâr purav mas o khâchâ baskare zargare zargar bashmas tûs madânai mone hadsâ ade zaif ase dâde tikhoke durust kare dâkanâ hamrànâ kâreme kashâ tenâ tûre kashâ zaranâ tukaras tamâ kârem kaning te saat jod kare touk phulo daswâna bânhi pâdînk shâghâ zaife wasat juwân mas o khâchâ bashkare darzi,e darzi damas tûs mone hadsâ zâife khânâ pâtuâ butas khânâ saat zewar tû kashâ tenâ tûre tamâ gudh moghangatî kûs gudh paijâmâ kul gidâ e to bar hâl kare odkhâchâ bashkare fakhire. Fakîr bashmastûs mone hadsâ zaife khânâ pâre yâ khudâwandâ dà amro jûwânô zaif ase wali armân ki pâtase du,â kare khudâ yâ tenâ khudâ inâ bar-katat dà zaife sâ yeti onâdawâ âmi mas zaife sah tamâ roshan mas ham-râkt bashmasû barkas pâre zaif ka-

Four men set out in company, one a carpenter, one a goldsmith, one a tailor, and one a fakeer ; they took with them some things and started. By the order of God they arrived at a desert place, a place of great fear. Evening set in, they brought firewood, they put water on the fire, they cooked food, eat it, and as they were sitting had a consultation among themselves and agreed, that it was a good thing to adopt some plan, and that it was a good thing there to set a watch and be on their guard. They all said well, by God's permission whose shall be the first watch. The carpenter said mine. They all replied, Well, brother, your's is the first watch, be seated, we three will go to sleep ; the goldsmith said, when your watch is finished, awake me ; he said well, do you go to sleep. The carpenter is awake and seated, reclines his head, looks here and there, a log is lying by, he takes it into hand and begins to carve it. In fact he made a woman out of it, his watch was finished, and he went to sleep, having awoke the goldsmith. The goldsmith awoke and seated himself, and slowly turning round his head, exclaims holla, here is a woman placed here, I conjecture this is the work of my companion : he took out his workbag and a piece of gold, and began to work ; he made such ornaments, as necklace, earrings, bracelets, bangles, anklets and put them on the figure which looked very well, he then went to sleep having awoke the tailor. The tailor awakes, is seated and turning his head, saw the woman, saw that it was a wooden statue covered with jewels, he took out his working bag and stitched the following articles of dress : a petticoat, a veil, a pair of drawers, all which being completed he went to sleep having awoke the fakeer. The fakeer awakes, seats himself, turns his head, and sees the woman, and says Oh ! God ; what a beautiful woman this is, what a pity she is

nai trākàn pàre zaif ka nà,e i, trà-
shànut zargar pàre zàif kanai sahtāk
kanou darzi pàre ni pikungonus zaif
kanai gudà kanou jà nà,ita fakhir
pare zàif kanai i duà karenut nanà
duwàe khudà kabùl karene gudà zaife
sahtamàne harchàr khalko kutàr jang
karer harchàr duye saht karer zaif
wati asit tàpàre kharwokàn kasar
seai tulin Musalmàn as bare nanà
sharà eke pàrer juwàn Kharwokàn
Rai masur basù kasarai warnàs barek
warnai khanàr tawàr karer khudàna
pinat sali nanà sharài kar warnà
salis pàre babo kul hinàr gap karer
warnà pàre zaif aràde zaifnà dùty
halko warnai nishàn tisù warnà zaife
khanà tawàr kare shukar ke nume
khudà hes dà kanà arwate dà khadar
sàle hinàne kanà màras zaifto ma-
sune zaif rasengà màre kanà etbo
dà hairàn masù jang karer pàrer
kharwokàn kotwàlai sharnà nanà
sharai ke pàrer juwan rai mabokàn
kotwàlai pad shànà nanà sharai ke
hinàr kotwàle khanàr pàrer kotwàl
nanà dàharx panjà sharài karak
pàre pàbo kul gap karer pàre zaif
aràde pàrer dàde kotwàl zaife khanà
pàre numà awate hanangira kucha-
kàk kuste yank dà kanà ilumnà
arwate hinàk filàn pìranà ziyàrat
kanà ilume kasifensure zaif rasengà
ilumnà khone yetbo dàkul hairàn
masù kotwàl dàft khalk pàre mohta-
mibo kustizauk devanume pàdshà-
ghàe numà pidà te harre dàft moh-
shàghàdare pàdshà is kotwàl arz kare
sàheb kurbàn marev kanà ilum hinàk
pìrnà ziyàrat-àe dà shakhs-àk kanà
ilum kasafenù zaife darenù ainù

of wood ; I pray thee, Oh God, in the
power of thy Godhead that you will
put life into this woman. His pray-
er, was accepted, and life was given
to the woman. It became light and
the fellow travellers awoke. Every
one said the woman is mine. The
carpenter said the woman is mine,
I carved her. The goldsmith said
the woman is mine, those are my
jewels. The tailor said, you dirty-
mouthed rascal the woman is mine,
the clothes belong absolutely to me.
The fakeer said the woman is mine,
I prayed to God, and God heard my
prayers and gave life to the woman.
They all four began to fight and to
lay hands on the woman. One of
them said, let us go, and sit on the
highway, some Mussalman may come,
he will decide our quarrel ; they said
well, let us go. They started and
seated themselves on the road, a
young man was coming along, they
saw him, and called out for God's
sake, stop and settle our dispute.
The young man stopped and told
them to say on ; they all went and
made nothing but noise. He said,
where is the woman. They touched
the woman with their hands and
pointed her out to the young man
who saw the woman, and exclaimed,
thank God that he has brought you ;
this is my wife, many years ago, she
went away and my son was with my
wife, she has arrived now, where is
my son. They all were astounded,
and began to quarrel. Then said
they, let us go to the Kotwàl of the
city, he will do us justice. They said
well, let us go, the Kotwàl of the
city will do us justice. They went
and saw the Kotwàl, and said, pray
Kotwàl do us five men justice. He
said say on, they did nothing but
make a noise, he said, where is the
woman—they said here. The Kot-
wàl saw the woman, and said, you
dog cuckolds, this is my brother's
wife. They went to the shrine of a
certain saint ; you have killed my
brother, the woman has arrived, now
bring my brother's corpse. They
were all confounded, the Kotwàl
beat them all, and said, go on you

tusasut bazarati dà lashkare khamat
basu kane, ai nanà sharai Kazak
zaife khamat durust karet da khamat
khamat arwate he sunut tà sharaghai
sahab dāftā pide harre pādshā pāre
zaif arāde zaife nishāntisū pādshā
zaife khamat pāre kuste zank khuram,
sakhak date kanā chokari, e kilit zūre
dā khadr jāwā hir darene kanā niāle
etabo dakul hairān masū pāre dabo
kulanā pide harrabo eftā pidāte
harār zaife barām kare pādshā.

rascals, I will take you before the king, and rip up your bellies. They all went on before: the Kotwāl thus supplicated the king: Sire, I will now sacrifice myself; my brother went to make offerings at the shrine of a certain saint; these people have killed my brother and taken his wife. To-day I was sitting in the bazar and saw this mob, who came before me to decide their dispute. I saw the woman and recognized her as my brother's wife; I have brought them before your majesty, now rip up all their bellies. The king asked where is the woman. They pointed her out, and when the king saw her, he said, you impudent scoundrels, this is my slave girl, the keeper of my keys. She has taken away an immense quantity of jewels, now deliver up my property. They were all confounded. He said, take them away, and rip up all their bellies. They were ripped up; the king took the woman to wife.

2nd.

Asas araghas pādshā i, u shar seti
hukmat khudānā ode mārās mas-
mārātenā pinekare Mullā Mansur,
mārta haft sāl mas bāwalumata kas-
ko o hinā kazīnā muzūr mas huli-
nā baidiranā hukmat khudānā aside
Kāzi odai ghu samas ode khalk mār
odān peshanmas Kāzi pāre peshan
mafa binān kāos mār pāre e be akul
khudā razāke meharbānī aute onapās
i nāmuzūr hich mafara mār peshan
mas shaharān dare hinā kasarase, at
toukal, e khudānā kare hinā gidā
dare hinā kasarai pīrū arag hase Kha-
nā pāre l'nā hamrot pīrangā pāre
bar ilūm kanā khante, ai bakikān hi-
nār pīrangānā shaharti pīrangā od-
tenā mehmān kare pīrangā araghe
masidas asak masidas zebou ast nān-
ke gidarengā detamā, masjidnā rūh
mārto, lagā bāwai tenā pāre kane

There was a man in the city of the royal residence, who by the decree of God had a son whom he named Mullā Mansur. The boy was seven years of age when his father and mother died; he went and engaged himself to serve the Kāzi as horsekeeper. By the decree of God one day the Kāzi got angry and beat him, the boy left the house; the Kāzi said, my boy don't go out, you will die of hunger. The boy said, oh fool, God is kind and merciful, don't say so, I will not do you a single service. The boy went out of the city and took what he had with him to the road. By the permission of God he went along with what he had. He saw an old man on the road, and asked may I come with you, the old man said, come my dear by my eyes, let us go. They went to the city of the old man who himself entertained the boy. The old man had a daughter who was very beautiful, the night passed away and it became day. The girl's heart became fixed on the boy, she said to

handàdto baràm yete ngar tifesa i tene kasifeva bàwat hairan mas bàbà ni hosh karak khàna wàda marak pàre toube nouzbilla kanà aregh areham handàd afuk ham haudàd bàwat bewasmas pena farzand alavta tenà ustatì pàre toukal khudàna dasharàna hitase hak nikàna daftà baràme kare dàde man wakht gidarengà aside war-nà pàre tenà arwàte dà sà kàn tenà mulkai pàre rai makàn rai masù basu tenà sharti àlumat kul sha,arat bingasú Mullà Mansùrnà zabro arwatase kazi bandaghe rai kare Mullà Mansùrnà arwatàe kanto yàri karak Kazinà hite Mullà Mansùr tenà arwato karesas don kane khalkune kazi zaifa pàre khantiyat kazi, e salam kes pàbegai barak kanà khantiyai kazi nã bandagh hinà pàdshà sifate bingas zaifnà bandaghe tenà rai kare pàdshà zaifaghàe kanto yari karak bandagh hinà zaife pàdshànà salàm! this zaif pàre mubàrak mare pàdshàe salàm kis adz bandagi pàt nànak kanà khaak begai bares zaif ruskhat kare hinà pàdshàe pàre sàheb begai kàreme nà karemut bilkul kàs pàdshà khush mas wazir sifate bingas zaifnà tenà chokari, e rai kare zaif ghàe kanto yàri karak chokari hinà pàre zaife zaif pàre mubàrak mare wazir nà nak kanà khauk begai bares zaif ruskhat kare rai mas hinà wazire pàre sàhebnè mubarak mare kàreme nà karenut bilkul kàs begae wazir khush mas wakil bingasas sifate zaifnà wakil tenà chokari, e rai kare, zaif ghàe kanto yàre karak chokari hinà pàre zaif pàre mubàrak mare kanà khantiai pà begai bares chokari hinà wakile mubà-

her father, give me in marriage to him, if you will not, I will kill myself. Her father was astounded, and said, my dear, consider yourself, behave as a modest girl, she said, Toube Nouzbilla, this shall be my husband, he or no one. The father was at his wits' end for she was his only child. He said in his own mind, by the permission of God, it is written in the book of law make proper marriage. He then married the two. Some time had past away; one day the man said to his wife, let us go to my country. She answered, well let us set out, they set out and came to his city. The whole people of the village heard that Mullà Mansur has got a pretty wife, the Kàzi started his slave off to Mullà Mansur's wife (saying) "make my acquaintance" (the whole story of the Kazi Mullà Mansur had before told to his wife how the Kàzi beat him): she said by my eyes give the Kàzi my salam and tell him to come this evening: the Kàzi's slave went away. The king had heard the woman's praises, and dispatched his slave to her, to ask "make my acquaintance:" the slave went and gave the king's salam; the woman said long may he live, give the king my salam and obedience; tell him I have his feet on my eyes and tell him to come in the evening. She dispatched the man who went to the king and said, Sire, this evening I have done the thing, you shall positively go. The king was delighted. The Wazir had heard the praises of the woman and dispatched his slave girl to her to ask "make my friendship;" the girl went and gave the message: she replied, may he live long; his feet are on my eyes; come this evening. The woman dispatched the girl, who went to the Wazir and said exaltation to you Sir, I have performed the business, you may certainly go this evening. The Wazir was delighted. The Wakil had heard the woman's praises and sent his slave girl to say "make friendship with me;" the girl went and delivered the message. The woman said may he be exalted,

rak badi this saheb karème nà kare-
nut begai kàs wakil khush mas zaifa
tenà araghe pàre dà hitàte kule pàre
ait pàre nà akhtyàre amake sujyeg-
ne hamon karak pàre hurkanà tamà-
she begai ni bânà,e khàch sail karak
hukmat khudànà shàm tamà ari
hinà bânà,e khàchà zaifa hes loias
bet kare dir shaghà tahtita bàet
halk Kazi fash kare salàm this zaifa
walaik kare pàre ba khairat kàzi
saheb ne Khudà hatare ba tultak
kàzi tús sad rupaie kashà tenà das-
pàkàn tis zaife, zaif rupai,te dakà
tawàr mas pàdshànà kàzi hairan mas
zaif pàre kàzi khairat kàzi pàre
pàdshà bas pàre khàtar jamà kar dà
gude be enas khalai tult mach ghal
nusakh pàdshà bare kai gudà nàwàre
kàzi hinà nuskhelai tús pàdshà fash
kare salàm alaik zaif pàre walaikum
salàm, bakave Khudà hatre kane
bashkes pàdshà pàre parwà afak das
pàkàn tenà irà hazàr rupai malàr
zaifnà monaghàn tikhà zaif rupaiite
dakà pàdshà pàre kàn khàchin aish
ashrat ken zaif pàre saheb dà khadr
brinj bet karenut saheb bà khoas
noshjàn ke nana se balo pàdshà pàre
jùwàn tawàr mas wazirnà pàdshà
pàre wazir bas pàre saheb I kàv
peshan hurev odere zaif peshan mas
wazire khanà pare bakhairat wazir
saheb wazir pàre yàr kharkàn urà-
ghàe pare pàdshà túsne uràti pàre
ant-salà,e pàre khàtir jamà kar ne
deva urati wazir pàre amaridaros
zaif pàre sabr karak i uràte kàv
barev zaif hinà gwàlas harafi peshan
hes wazire pàre dàti peha wazir
hinà pehà onà bàe chikà tafe gwàlai
gires dare urati pàdshà pàre o antase

by my eyes tell him to come this
evening. The girl went away and
said, may you be exalted, Sir, I have
done your business ; you may go in
the evening. The Wakil was de-
lighted. The wife told the whole of
this to her husband, who said you
are your own mistress in the affair,
do what you think proper. She said,
look at my sport, in the evening do
you go, and lie down on the terrace
and look on, by the order of God,
evening set in, the husband went
and lied down on the terrace. The
woman brought in a pitcher, filled it
with water, and covered it. The
Kàzi approaches and says salam,
the woman replies walaik, are you
well, Kàzi Saheb. God has brought
you here, be seated. The Kàzi
sits down, and takes out a hundred
rupees from his handkerchief, and
gives to the woman. The woman
ties them up. Noise was heard of
the king approaching. The Kàzi was
astounded: she said, well Kàzi, are
you well. The Kàzi said, the king
has come; she said never mind, cover
yourself with this veil, sit down at
this handmill, and grind a little
grain; when the king goes the next
will be your turn. The Kàzi goes and
seats himself at the handmill. The
king approaches and says salam alaik,
the woman replies walaikum salam.
God has brought you, and given you
to me; the king says, never mind.
He takes out two thousand rupees
from his handkerchief and put them
before the woman, she secures the
money. The king said now let us
go and recline and amuse ourselves;
she said, Sir, I have prepared a little
rice be pleased to eat, it will refresh
you, the night is not far advanced.
The king said very well. There
was a noise of the Wazir's approach,
the king said the Wazir is come;
she said Sir, I will go out and see
him, the woman went out and saw
the Wazir and said, are you well
Wazir Saheb. The Wazir said, my
love let us go into the house; she
said, the king is sitting in the house:
he asks, what is our plan, she said,
let your mind be at rest, I will take
you in doors. The Wazir said take

zaif pàre dà *ghalou* machy mas tawâr mas wakilnâ pādshâ pàre, wakil bas zaif pàre sabr karak kâv huriwata dere. Zaif peshan mas wakile *khanâ* salâm this *bakhairat* yâr jânî wakil pàre *khar* kân urâti pàre *bakhtâwar* pādshâ basune urâti tûsane pàre ant sala,e, zaif pàre *khâtar* jamâ kar nâ kârame kev dâdoe halltak tenâ pundûtine karah e daginâ *keghân* châr pādah marak pàron daginâ gosâlai zaif darwâze tafe kulf kare hinâ bânai *khâchâ* tenâ arigh to pādshâ malâs mas tawâr kare chokr. kane dir yeti kazi batir jald kare *khalk* *khâlas* chokariyân kâzi mone hadsâ pàre kâzi sâheb us pàre, ho,o pàre bashmarak kâzi bashmas bas *khâ* *khâ* rai tûs pàre pādshâ sâheb aut khabar e pare khabar handâde *khanisa* nâchaj *ghaloghâ* kne amaro, zaife bânân shef mas araghe tenâ hes urâte pehâr pādshâ,e salâm thisû dâna afale o kazinâ ne afâle,e wazîr nâ ne afâle,e wakilnâne afâl e pādshâ pàre wazîr arâde wakil arâde, zaif pàre, bashmarak nishân tevne pādshâ bashmas zaif pare givâlanâ bae malabo wazîre kashâr pādshâ pàre wazîr haifene wazîr pàre nâ afâl jûwân,e kanâ gand,e zaif pàre *khar* wokân peshan, kul peshan masû hinâr daginâ rahâe pādshâ pàre wakil arâde zaif pàre sâheb dâde do pundûti eta pādshâ pàre kanâ luma,os idûs kane salâme kul tenâ id karera ta harkas tenâ urâgh,âe hinâr. Dâ basu tenâ urâti *khâchâr* hukmat khudânâ chand wakht ginarengâ Mullâ Mansûre mârâs mas mârta haft sal mas darer tûlli ferta *khwanangâ*,e kâzi his aside mas zaif mârâe tenâ pàre âkh undene salâm kes mâr hinâ ede pàre âkhun

me quickly. The woman said, wait, I will go into the house, and come again: she went and brought out a basket, she says to the Wazir, get into this, the Wazeer gets in, she closes the mouth and drags him into the house. The king says, what is that, she says, it is some grain: a noise took place of the Wakil's approach. The king said the Wakil is come, the woman said stop, I will go out and see who it is: the woman went out and saw the Wakil and made him a salam, are you quite well my love? The Wakil said let us go into the house; she said, you wretch, the king is there seated in the house: he said, what is our plan; the woman said let your mind be at rest, I will do your business, make yourself a tail with this spoon and go on all fours, in the cowhouse, they will take you for a calf. The woman shut the door and locked it, she went upon the terrace and lied down with her husband. The king became thirsty and called out, here girl give me some water, the Kâzi grinds faster than ever. "Here, you girl, I'll throw a stone at you." The Kazeer turned round his head. The king said, are you the Kâzi. He said, yes: he said, sit up. The Kâzi gets up and comes and sits near the fire, and then asks, pray sire, what is the news: he said this is the news that you see, let me see what grain you were grinding: the woman comes down from the terrace with her husband, they both saluted the king, and said, this is your plight, your majesty, this is the Kâzi's plight, this is the Wakil's, this is the Wazir's. The king said, where is the Wazir, and where is the Wakil: the woman said he seated, I will shew you: the king sits down, the woman said, open the mouth of the basket: they took out the Wazir. The king said, Wazir, how are you; the Wazir said your majesty's condition is pleasant, mine is unpleasant, the woman said, let us go outside, they all went out to the cowhouse; the king said where is the Wakil, the woman said here he is Sir, with a spoon for his tail. The king said I respect you as my mother

sàheb lumkanà·ne salàm karek kái
 pàre lumnà ne nutàk kutànù mār
 pàre sàheb tipara kàzi tenà ustāti
 tākà khwash mas kàzi tenà chokā-
 rī,e rai kare zaifaghā,e chokari hinà
 salàme this zaif pàre begai bares bil-
 kul chokari hadsengā bas kàzi,e pare
 kàzi khwash mas zaif tenà araghe
 pàre begai safilati khàchak chidingas
 dūty tenà karak arā wakhtai Kàzi
 bas chidinge chandefis arakht pàre
 jwàn shām tamā kàzi bas sad rupai
 this pàre bashkàn khàchin chidingnā
 tawār mas kàzi hàiràn mas zaif pàre
 kanā aregh bas kanā moṃ mohn mas
 kàzi pàre kash e gudātine sundukh
 tī khàch kàzi khàchà arikht bas urāti
 tūs sundukhe kulf karer khàchār
 mullànà bàngai zaif bashmas tamā
 pitingati hamsā,e ghāk kul muchma-
 sū aut hoghang ase zaif pàre kanā
 aragh hipāne kanā lum ghastā shāh-
 rai lum kanā kaskune lāshet hesuni
 kul tamā hoghangti àlam hinār kabr
 sthānai hinār kabre taiyār karer
 basur lāsh ā,e harfer darer kilitē
 khwāyār mudde kasheṃ zaif pàre
 kilit afak i tenà lumai kashe pàra
 pādshā kilit e khwāyā hallk kulfe
 malār kazi,e khānār kazi,e mochide
 māṃ khalk kuste zan behayā dā aut
 afāl as kuramsāk arwat gā,ida pes-
 hama sundukhān arwat gā,ida hina
 gumarak àlam harkas hinār tenā
 uratiyai.

or my sister, and I take my leave.
 They all called her their sister and
 every one went to his own house,
 they went into their own house and
 slept. By the order of God some-
 time had elapsed and Mullā Mansur
 had a son, the son was seven years
 old, they sent and seated him in a
 reading school under the Kàzi. One
 day the woman told her son to give
 her salam to the Kàzi; the boy
 went and said my mother has sent
 you her salam. The Kàzi said is
 your mother's flour finished, the
 boy said I don't understand, the
 Kàzi reflected in his own mind and
 was delighted: he dispatched his
 slave girl to the woman, she went
 and gave the salam: the woman said
 by all means come this evening. The
 girl went back to the Kàzi and told
 him, he was delighted. The wife said
 to her husband, this evening lie
 down on the balcony and have some
 bells in your hand, when the Kàzi
 comes shake the bells, the husband
 said very well. Evening set in, the
 Kàzi came took out a hundred
 rupees, and said come now let us
 sleep, the bells began to sound, the
 Kàzi was confounded, the woman
 said my husband has come, he will
 make my face black, the Kàzi said
 I will take off my clothes and lie
 down in this box; the Kàzi lies
 down, the husband comes into the
 house, sits down and locks the box,
 they go to sleep. At the call to
 prayers the woman awakes and be-
 gins to wail; all the neighbours
 assemble to ask the cause of the
 weeping, the woman said my hus-
 band went into a neighbouring vil-
 lage where my mother had died, and
 has brought her corpse, in a box;
 they all began to mourn and cry.
 Some went to the burying place and
 prepared a grave, and some to bring
 the coffin, they carry it away and
 asked for the key, that they might
 take out the corpse: the woman said
 there is no key, I will not have my
 mother taken out, the king demand-
 ed the key, they took it and opened
 the box, they saw the Kàzi, you
 rascally lewd knave, see the plight
 you are in, you donkey cuckold
 come out of the box, said the king:
 every one went to his own house.

IV.—*Translation of Inscription in the Society's museum. Continued from vol. VI. p. 887.**Brahmeswara Inscriptions from Cuttack.*

Besides the two slabs of stone identified last year as belonging to the *Bhuvaneswara* temples, in *Cuttack*, and consequently returned to the brahmans after perusal, there was a third broken into two pieces, which Mr. KITTOE pointed out as being in the same character and from the same locality. Before returning this he kindly took for me a very exact impression, whence I have copied the reduced facsimile in Plate XXIV.

Although, as will be seen, the slab was in a state of considerable mutilation, yet from the inscription being in verse, my pandit, KAMALÁKÁNTA VIDYÁLANKÁRA, has been able by study of the context to fill up all the gaps, with, as he says, hardly a possibility of error, and indeed where the outline of the letters is preserved I have found his restoration quite conformable. The translation has been effected by SÁRODÁPRASÁD under his explanation, but I have not leisure to read it over with KAMALÁKÁNTA.

Mr. STIRLING says* that "no information whatever is afforded by the *Orissa* chronicles of the origin of the princes called the *Kesari vamsa*; the founder of the new dynasty in A. D. 473 was JAJATI (YAYÁTI) KESARI, a warlike and energetic prince, but who he was or whence he came we are not apprized. He soon cleared his dominions of the *Yavanas*, who then retired to their own country."

Perhaps the present inscription may in some measure remove this obscurity. It commences with the conquest of *Udhra* or *Orissa* by JANAMAJEYA the king of *Telinga*. It is possible that this alludes to the prince of that name in the Pauranic lists, but the locality of his dominion, and the names of his immediate successors are wholly different from those of the Magadha line, and their history is circumstantially told as of events transpired not long antecedent to the *Kesari* dynasty of *Orissa*. His son was DIRGHARAVA, and from the latter was born APAVÁRA, who died without issue. The kingdom was then overrun by invaders from foreign countries,—(perhaps the same designated as *Yavanas* in STIRLING'S *Chronicles*),—when VICHITTRAVIRA another descendant of JANAMEJAYA reigning in a neighbouring kingdom, possessed himself of *Orissa*. His son was named ABHIMANYU'; his again CHANDIHARA; and from the latter descended UDYOTAKA KESARI, whose mother KOLÁVATI erected the temple to SIVA as *Brahmeswara*. The date of the

* As. Res. XV. 265.

inscription is expressed only in terms of the reign, but from the style of the Devanāgarī, it may be confidently affirmed to be later than the epoch fixed for *Lalat Indra kesari* (617 A. D). UDYOTAKA KESARI must then be one of the 32 unrecorded princes who succeeded him in the *Kesari* line previous to the establishment of the *Gangavamsa* family on the *Cuttack* throne.

The figure 3, it may be remarked, closely resembles the ancient form of this numeral ; the 8 is nearly of the modern shape.

The stone was, as stated above, returned to *Bhubaneswar* ; but Mr. KITTOG did not find as he anticipated any resulting cordiality or goodwill among the priesthood of the place ; on the contrary they brought him a long list of purloined idols, and impetuously urged him to procure their return as he had done that of the inscriptions !

Transcript of the above Inscription, (Pl. XXIV.)

ब्रह्मोपेन्द्रमहेश्वरेन्द्रवलिभीरञ्जुलताहीश्वरैर्भाम्यन्मन्दरपर्वतेन मयि
तात् क्षीरोदधेर्मध्यतः । विस्फीतामृतकौमुदीभिरखिलं त्रैलोक्यमुद्यो
तयन् राजेन्दुः सकलासमग्रवसतिः सांज्ञं श्रिया जातवान् ॥ १ ॥

तदंशेऽजनि शुभकीर्तिरतुलोविश्वम्भरावल्लभो राजा श्रीजनमेजयः
स रिपुहा भूतल्लिङ्गाधिपः । दन्तादन्तिकराकरिश्रममिषाद्भूमे
रिपूणां द्विपे यः कुन्ताग्रहतौद्रदेशेऽपतेर्लक्ष्मीं समाकृष्टवान् ॥ २ ॥

सम्माद्भर्त्ररिराजकम्बरमणीसीमन्तविभ्रान्तिहृद् विख्यातो नयविक्र
माद्भुतमतिः सप्ताङ्गराज्येश्वरः । वाल्यादक्षतवैधकर्मचरितस्त्यागी महा
धार्मिको राजा शैर्यमयो ययातिनृपवद् यो मेदिनीमण्डनः ॥ ३ ॥

तस्यान्ते कलिकालकल्पविटपी भूपालचूडामणिर्मर्यादामृतसत्त्वधैर्यक
मलागाम्भीर्यरत्नाकरः । माङ्गल्योदयशक्तिसिद्धिविदुरः प्रख्यातकीर्तिः
सदा राजा दीर्घरवोऽमहारथगुणः शूरो वभूवारिहा ॥ ४ ॥

तस्मादजयभुजवच्चविनिर्जितारिरुर्जस्वलः परशुराम इव द्वितीयः ।
मथ्यन्दिनार्क इव तीव्रतरप्रतापो राजा बभूव कविधर्मपरोपवारः ॥ ५ ॥

तस्मिन् गते दिवमपुत्रिणि राजमल्ले नानाभटैरुपहृते सकलेऽपि
राष्ट्रे । देशान्तरस्थितवती भवर्षप्रवीरे कालः कियानगमदत्र यथाक
थञ्चित् ॥ ६ ॥

तत्स्थानी जनमेजयस्य तनयो भूतः प्रसिद्धः क्षितौ सर्वत्रापि विचित्र
वीर इति यस्तस्मादजन्यात्मजः । धन्योऽसावभिमन्युरित्यतिवली तस्योप
तेजाः सुतः श्रीचण्डीहर इत्यभून्नरपतिः सर्वैरमात्यैः कृतः ॥ ७ ॥

भृत्यामात्यसुहृत्प्रजाश्रितजनज्ञातोऽष्टवन्ध्वन्यथायोगं संपरिपाल्य रा
ष्ट्रमुभयं निष्कण्टकीकृत्य यः । भूतोनेकनरेन्द्रशेखरमणिप्रोद्गच्छदंशुच्छ
टालोकोद्भासितपादपद्मयुगलः सर्वावनीनन्दनः ॥ ८ ॥

श्रीमानाचतुरब्धिसीमवसुधाचक्रैकरक्षाभणिर्मान्धातेव पृथूपमो भर
तवद्राजा जगज्जित्वरः । सूर्याचन्द्रमसोः समैर्निजकरैरुदीपयन् रोद
सी पूर्वार्धेः सवितेव सूनुरुदगादुद्योतकः केसरी ॥ ९ ॥

बालक्रीडाभिरेव प्रतिभटमखिलं सिंहलं चोडगौडौ युद्धे सन्नद्धयोधं
द्विरदवलघटासङ्करं यो विजित्य । उद्धृताक्षौहिणीपद्मरुगतिविनमद्भूभ
राक्रान्तकूर्मो राज्ञः कुर्वन्नशेषानवनतशिरसो जिष्णुर्वर्त्मजैघीत् ॥ १० ॥

तन्माता दिनकृत्कुलस्य दुहिता कोलावती नामतो यासौ शीतकरा
न्वयस्य महिषी दुर्गेव लक्ष्मीरिव । यस्याः कीर्त्तनमूर्द्धसुध्वजचयोवात्या
भिरूर्द्धंगतो हस्ताभः शशिलक्ष्य लोभुमिव खे सोत्साहमुद्गच्छति ॥ ११ ॥

श्रीमद्ब्रह्मेश्वरस्य प्रणतमलहृतः स्पर्शतोमुक्तिदस्य प्रासादोर्ध्वकषाय
स्तरणिरथरयथाहतिस्थाणुकल्पः । एकाम्ने सिद्धतीर्थे चतुरमरकुली
चारुशालासमेतः कोलावत्या तयैवः क्षितिमुकुटनिभः कारितः कीर्त्ति
राजः ॥ १२ ॥

लोकालोकमहीध्रसप्तजलधिदीपस्थलीपिण्डिकामध्यस्थायुकमेरुलिङ्गमु
परि ब्रह्माण्डहेमाब्जं । गङ्गाद्भिः स्वपयन्नहर्निशमसौ देवस्त्रिलोकीपति
ब्रह्मा स्वर्च्छति यं शिवं स भगवान् ब्रह्मेश्वरोऽयं विभुः ॥ १३ ॥

उर्द्धभाजत्कनककलसोत्तिष्ठदंशुत्कारार्चिर्दीप्यलोकप्रसरत्कृतदिक्चक्र
वालप्रसादः । प्रासादोऽस्य त्रिदशयुवतिव्रातसन्ध्याप्रदीपोमूर्द्धवाग्नेः सकल
गगनं मण्डयन्नुच्चकास्ति ॥ १४ ॥

रत्नलङ्घृतिभूषिताङ्गसुघमादेदीप्यमाना दिवः क्रीडन्त्यस्तडितः स्थिरा

इव कुचश्रीभीरथाकुलाः । सुन्दर्यात्तिकनीनिकाइव दृशामन्तःप्रवृ
ष्टा नृणामस्मै चक्षुलखञ्जनाभनयना दत्तास्तया^१दारिकाः ॥ १५ ॥

० वेदव्याकरणार्थशास्त्रकवितातर्कादिविद्याधरो ब्रह्मेवावितथप्रसन्नविन
योदुद्धिर्विशुद्धान्वयः । ताराधीश्वरवंशजावनिभुजां शुभं यशस्तन्वती
भद्रः श्रीपुरुषोत्तमः कविवरेऽर्काधीर्दिमां वर्णनां ॥ १६ ॥

सनगवनसमुद्रा मेदिनी यावदास्ते त्रिभुवननिजनेत्रे पुष्पवन्तौ च
यावत् । अतिजगदुपरिस्थो यावदौत्तानपादिर्जनवदनसुधेयं तावदस्तु
प्रशस्तिः ॥ १७ ॥

परममाहेश्वरमहाराजाधिराजसोमवंशोद्भवभूपतिकलिङ्गाधिपति
श्रीमदुद्योतकेसरिराजदेवस्य विजयराज्ये सम्वत् १८ फाल्गुन शुदि ३
सूत्रधाररायः ।

Translation.

1. The moon, perfect in his digits, (full) born with Sni from the midst of *Kshira Samudrā* (the sea of milk) when churned by the *Mandara* mountain whirling with the chief of the serpents used as a rope by *BRAMHA*, *UPENDRA*, (*VISHNU*), *MAHESWARA*, *INDRA* and *BALI*;—enlightens the three regions with his swollen beams and nectars !

2. In his line was born *rāja JANAMEJAYA*, who was of moon-like fame, master of the world, incomparable, destroyer of his enemies, and the owner of *Telinga* ; and who drew to himself the fortune (*LAKSHMI*) of the *rāja* of *Udhra* who was killed by his *śunta* (a weapon) while their antagonist's elephants were overcome with fatigue fighting with their tusks.

3. He (*JANAMEJAYA*) was a celebrated emperor, master of the kingdom of seven limbs*, of wonderful understanding in power and morals, charitable, most virtuous, a hero, and like *rāja YAYA'TI* an ornament of the earth ; and who deprived the lovely wives of his inimical *rājas* of their pride of lovely tresses† ; and whose lawful deeds and conduct remained unchangeable from his childhood.

4. After him his son *DIRGHARAYA* became *rāja*, who was a great *kalpa* tree, the very crown-jewel of princes, modest, of boundless spirit, steadiness, riches, gravity, depth of knowledge, wise in producing prosperity

* The limbs of government, or as we say 'sinews of war'—horses, elephants, fighting men, pandits, merchants, &c. See allusion to the same in the Burmese bell inscription, page 294.

† The Hindu women are forbidden by the *śāstras* to beautify their hair after the death of their husbands.

। वरममादश्वमदारुतामिश्रसाम् । तत्रकोविज्ज्ञावधानम् ।

ॐ नमो भगवते वासुदेवाय । अथ श्रीकृष्णार्जुनसंवादे ।

and three sorts of power* and success†, a hero, and destroyer of his enemies, and who had qualities like that of a *Maharatha* (a warrior fighting in a car) and whose fame is celebrated.

5. From him was born the powerful* rája named *APAVA'RA* as the second *PARASURAMA*, who suppressed his enemies by his invincible hand as with a thunderbolt, and became great through the merits of poets, and whose spirit was warm, like the sun in midday.

6. When he, the best of rájas, departed unto heaven without issue and all his kingdom was laid waste by various warriors, how long a time passed away in various ways, when the elephant-powered hero (*VICHITRAVIRA*) was in a different country, (*Telinga*.)

7. *VICHITRAVIRA* (who was another descendant of *JANAMEJAYA*, and celebrated every where on the earth as a wonderful hero), was placed in his place. From him was born his fortunate son *ABHIMANYU*, and from him was born *CHANDIHARA* who was powerful and spirited like him (his father). He was made king by all his ministers.

8. He reigned impartially, cherishing all his servants, ministers, people, those who sought refuge, kinsmen and desired friends, and made both his kingdoms indisputable ; who was the cause of delight of all the earth, and whose lily-like feet were enlightened by the splendour of the head-jewels of many prostrate rájas.

9. From him arose *UDYOTAKA KESARI*, like the sun from the eastern mountain, illuminating the earth and heaven by his lustre, radiant as the sun and moon beams ; who was rich and the crown-jewel of the circle of earth defended by its four oceans ; and who was a conqueror of earth, like *MA'NDHA'TA*, *PRITHU*, and *BHARATA*.

10. Who having defeated the whole force of his enemy, the *Sinhala*, *Choda* and *Gaura* (countries) as it were in child-play, and with well-armed warriors and a number of elephants in battles conquered the whole earth, causing numberless rájas to bow down their heads ; who was victorious and who made the tortoise oppressed with the weight of the earth sink down by the heavy march of his bright army, containing an *akshauhini*†.

11. His mother, named *KOLA'VATI*, was a daughter of the solar and the chief queen of the lunar line ; whose fame is a number of flags above the earth, and like the whirl wind ascending up, and like a hand going up with exertion as if to destroy the spots of the moon.

12. By that *KOLA'VATI* was caused to be erected this cloud-touching temple with four beautiful halls, of four other gods, which is like a tree without branches in interrupting the speed of the sun's car (ray?) like a crown over this earth and the king of fame, of *Bramheswara*, who destroys the sins of worshippers, and gives salvation to those who touch (his image) at *Ekamra* the holy place.

* Powers derived from magnanimity, exertion, and private advice.

† The successes of gaining land, gold, and friends.

‡ An army consisting of 189,350 foot, 65,610 horse, 21,970 chariots, and 21,970 elephants.

13. Whom (SIVA) the holy BRAMHA', lord of the three regions, having bathed his emblem, *Merú*, the golden spot situated in the centre of the mountain *Lokaloka*, the seven oceans and islands, with the water of *Ganga* is worshipping day and night. This is the very SIVA BRAMHESWARA.

14. This temple shines above, adorning all the firmament; like the summit of a mountain, or the evening lamp of the assembly of the youthful goddesses; from it all the regions have been lighted up by the lustre of the rays issuing from the golden *kalasa* (pinnacle) shining on its summit.

15. By her (KOLA'VATI) were given some beautiful women to him (SIVA) who had eyes like that of the fickle *khajjama* (wagtail) and who were bright like the sparkling and immovable lightnings of the sky by the exquisite beauty of their limbs, adorned with gemmy ornaments, of lovely heavy-swollen bosoms, piercing through the eyes of men, like the beam of their own eye.

16. PURUSHOTTAMA BHATTA, the best of poets indited this eulogy, which spreads the white fame of the rájas of the lunar line; who was learned in the vedas, grammar, political science, poetry, logic, &c. &c. and, like BRAHMA, of true, pure and humble understanding, and (born) of an innocent family.

17. So long as the earth with its mountains, forests, and seas, the sun and moon which are the two eyes of the three regions and the *Aultonapa-di* (the north polar star) which is above the earth, shall endure, so long may this eulogy exist as nectar in the mouth of every one.

On the 3rd of the light half of *Phalguna* of the *Samvat* 18, of the victorious reign of rája UDYOTAKA KESARI DEVA who was most rich, king of kings, a rája of the lunar line and lord of *Kalinga*.

V.—*More Dánams from the Sanchi tope near Bhilsa, taken in impression, by Capt. T. S. BURT, Engineers. Translated by JAS. PRINSEP.*

Capt. BURT has gleaned all that Capt. SMITH, of the same corps of Engineers had left undone at the Buddhist monument of *Sanchi* described in my last volume. His facsimiles were presented to the Society two months ago, but I have been too much occupied with more important documents to take them in hand, as nothing could be expected from them but a continuation of the catalogue of donors to the building. Nevertheless every word in the old character is worthy of preservation: it helps to restore the lost dialect,—it proves the constancy or otherwise of the orthography:—the style of names and titles. Upon looking back at my former readings I perceive very numerous errors which I could now readily correct, but it is hardly worth while, as the Páli scholar will at once discover them, and others will not care for trifling



grammatical niceties. As all of them are read through their analogy to Sanskrit words it is probable that my pandit may still err in apprehending some of the equivalents, especially of the adjectives.

It is a rather singular fact that, while none of Captain SMITH's *dānams* mentioned the city of *Ujein*, the majority of the present list have the initial word *Ujeniyā*, 'of *Ujein*.' This I suppose must have proceeded from the former officer having taken his specimens chiefly from one side of the tope, while Capt. BURT naturally undertook the opposite side, as previously unexplored; and the good people of *Ujein* may have liked to see their names as much together as possible.

There can be no doubt (as Capt. BURT writes) that the object recorded by each was the gift of a stone or pillar of the enclosure, or of the money to pay for its erection; and we know that the habits of the Buddhist priesthood who live by alms, would lead them to the houses of rich devotees in the flourishing city of *Ujein*, and the well endowed monasteries and convents of the neighbourhood, to raise funds for the work they had in hand, which was perhaps merely to make the enclosure; for the stupa itself, as we have seen by the published extract from the *Mahāvansa*, was erected at the expense of the local *rāja*, under the circular mandate of the emperor *Asoka*.

I have introduced the whole of these fresh inscriptions from *Sanchi* in Plate XXIII. on a reduced scale; numbering them in continuation from the former plate.

It is unnecessary to repeat them in type,—I therefore confine myself to a transcript of each in Roman characters.

No. 22. *Ayachuḍasa antevāsino Balamitasa dānam thabho.*

"This pillar is the gift of *BALAMITRĀ*, the well-tonsured pupil."

Or *Aya chuḍa* अयचुडः may mean also, "having a fine jewel ornament," fixed on the tuft of hair left when a child undergoes the ceremony of tonsure; *thabho* or *thambho* for स्तम्भः pillar. See the *Carli* cave inscription in the last volume, page 1044.

No. 23. *Aya chuḍasa, dhama kathaka, antevāsino Bāla mitasa dānam.*

"The gift of *BALAMITRĀ* the well-tonsured pupil, reader of *dhamma*."

This is perhaps the same party, more advanced in his studies.

Nos. 24 and 25. *Vasuliye dānam.* "The gift of *VASULĪ*."

There are several bearing the same name, some written *Vasulaye*, an uncertainty naturally produced by the attempt to render without compound letters the Sanskrit genitive वसुल्याः

No. 26. *Sethino paṭikamakṛlikānām dānam.*

"The gift of the serving women of the nobility."

Sethi (Sanskrit *Sreshthi*), means also the head of a corporation.

No. 27. *Yasiliye dānam*, “—the gift of *YASILI*.”

No. 28. *Ujeniyā phakiliyānām dānam*,

“The gift of subscribers of *Ujein*.”

The *nām* is omitted in the lithograph by mistake; the word is taken from the Sanskrit प्रक्रियाणां “of subscriptions.”

No. 29. *Ujeniyā dhamagilino dānam*.

“The gift of *DHAMAGIRI* of *Ujein*.”

No. 30. *Mulagirino dānam lakhakasa*.

“The gift of *MULAGIRI* (the root-hill of religion) the millionaire” or perhaps रक्षकस्य the protector, may be more suitable.

No. 31. *Ujeniyā chheta mātu dānam*.

“The gift of the *Kshatra*’s mother of *Ujein*.”

No. 32. *Uje(ni)yā tāpansiyano isimātasa dānam*.

“The gift of the body of rishis, performing their austerities in *Ujein*.” In Sanskrit उज्जयिन्यास्तपस्विनश्चपिमात्रस्यदानं.

No. 33. *Ujeniyā saphineyakānam isikasa dānam*.

“The gift of the morality students of *Ujein* to the rishis”—(reading *savineyaka*—and *isikasa* for *isikāya*.)

No. 34. *Ujeniyā ūpe(n)dadatasa padavatāyāchhaya dataya dānam*.

“The gift of *UPENDRADATTA* of *Ujein*, for a perpetual charity to the itinerants: पदवृत्तायाश्चयदत्तये दानं.”

No. 35. *Ujeniyā tāpansiyānam punsānam jaya dānam*.

“The victory-gift of the people performing austerities of *Ujein*.”

No. 36. *Arahiniyā Sihayā dānam*.

“The gift of *arahini* (or *SĀMARAHINI*) *SINHI*.”

No. 37. *Ujeniyā gi(ri)siyānam punsānam jaya dānam*.

“The victory-gift of the men residing on the hills of *Ujein*.”

No. 38. *Ogireyakasa satigūṭasa dānam*.

“The gift of *SATYAGUPTA* the *Agarwala*,”—(or the son of *UGRA*), whence औपेयकस्य सत्यगुप्तस्य दानं.”

No. 39. *Usakidāya bhichhunīye dānam*.

“The gift of *Usakridā* the priestess.”

उषःक्रीडा means “who plays in the morning.”

No. 40. *Akilaye deviye ahimatumarā..* ...

“The (gift) of *AKILA DEVI* mother of *AHI*.”

No. 41. *Asvadeviye Bahadāta mātu dānam*.

“The gift of *ASVA DEVI* the mother of *BAHADATTA*.”

²² མཛད་པ་ལྷ་སྐུ་རྒྱལ་བ་འཕགས་པ་ཀུན་ལ་ཞུ་བ་ཡི་ཨོཾ་ (on the gateway pillar,

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³² L'ཅུ་རྒྱུ་ལྷན་སྦྲེལ་བྱེད་པའི་ཁྲོམ་གྱི་ཕྱོད་ཀླུ་ཡི་ཐུག་པའི་ཆུང་མ་ཤིང་།

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35 L E I U A S T U N A M E D I C I

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37 L E I E K R E T Y O T E T S T.

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Handwritten text in a script, possibly Indic, with some characters crossed out or corrected. The text is arranged in approximately 10 horizontal lines. Some characters are written in a larger, bolder script, while others are smaller and more delicate. There are several instances of characters being crossed out with diagonal lines, suggesting corrections or deletions. The overall appearance is that of a manuscript or a draft of a document.

Handwritten text in a cursive script, possibly a form or ledger, with columns and rows of characters.

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The same in Roman characters.

Mahārathi tu nakáyiko kumáro hakusará kumáro sava váharodhañña
bheritam sampayuto sapaṭo aso asarathágámínam a (so) asamoroyaño
bátiyo, ttha dakhiniyonam*s asarapála ghará yutám ra pu ro
rápinakábá panároná kigamo

The above will be better understood by Sanskrit scholars if turned literatim into the more classical dialect :

आर्यधर्मस्य (for धर्माय) नमः इन्द्राय नमः शक्रेशेभ्यो वासुदेवेभ्यः चन्द्रसूर्याभ्यां धर्मवृत्तेभ्यश्च (or धर्मवद्भ्यां वृत्तेभ्यश्च) लोकपालेभ्यः यमवरुणैर्द्वारवेभ्यो नमः कुमारवरस्य वेदिश्रीशरणः रायासिमुकसाववाहः (?) दिव्यनयनिकायो राकेशकुमारो भा (ति) महारथि तूष्णीकायिकः कुमारः हकुशरा कुमारः सव्येविहरो धन्यभेरित संप्रयुक्तः सपटः असौ अक्षरथागामिनां असौ असमो रोपज्ञो वाऽदयोऽथादरो नायः असुरपालगृह्यते।

Translation.

Glory to the supreme *Dharma* (or virtue)!—glory to Indra! To the lords of *Sakra* (?) the *vasudevas*, to the sun and moon, to the sanctified by *dharma* and venerated (saints)—to the *lokapálas* (upholders of the world)—to *Yama*, *Varuna*, and the spirits of the air, glory!

He whose refuge is the prosperity of the throne of an excellent

prince,—who is the supporter of ? the abode of heavenly morality,—the young prince RÁKESA, is illustrious (?).

He of the mighty chariot, (the great warrior) the prince TUNAKÁYIKO, the prince HAKUSARO, who rambles every where for pleasure, proclaimed by kettledrums as the fortunate, he is finely clad, he is the fearless leader, who is unequalled by any who go by horse and chariot, skilled in archery and nonpareil, connected with the house of AMARA PÁLA: (the rest unintelligible).

Here we find after a regular Buddhistic invocation, the commencement of an eulogy on one or perhaps on two princes of unknown names, who probably caused the chamber to be excavated.—Until we have a facsimile, and a careful re-examination of the blank spaces nothing more can, I fear, be made of the fragment.

VI.—*Proceedings of the Asiatic Society.*

Wednesday Evening, the 4th July, 1838.

The Honorable Sir EDWARD RYAN, President in the chair.

The Rev. SOLOMON CÆSAR MALAN, Professor of Bishop's College was unanimously elected a member of the Society.

Mr. EDWARDS, C. S. proposed by Mr. W. K. EWART, seconded by the Secretary.

Major WILLIAM GREGORY, Bengal Army, proposed by Dr. SPRY, seconded by the Secretary.

The Secretary submitted a new steel-engraved heading for the Society's diplomas and correspondence; executed from a sketch sent home by himself,—improved on by Professor WILSON and Mr. W. SAUNDERS in England. He suggested that a new form of diploma should be engraved on the plate in lieu of the present simple letter of announcement, to be signed by the President of the night and by the Secretary.

The form was adopted for M. MALAN's diploma.

Baboo RAM COMUL SEN, Treasurer, submitted the two following queries in regard to the contributions of members:

1. Whether members absent at the *Cape* or at sea, are subject to the usual quarterly subscription?
2. Whether members returned from Europe are to be considered as subscribing members without any reference or intimation?

With regard to the first query, it was determined, as had been generally the practice, that during absence from India a member is exempt from payment; but that on his return to the country his subscription recommences from the first ensuing quarter, unless he intimates his desire to retire from the Society. As the rules do not clearly define these points it was determined that they should undergo general revision by the Committee of papers.



Correspondence.

The Right Honorable C. W. W. WYNN acknowledged by letter, his election as an honorary member*.

Professor OTHMAR FRANK returned thanks for Sanskrit books presented to him, and offered in return two treatises lately published by himself.

One on an Indian monument in which SIVA and VISHNU are coupled as *Harihara*, the other on four idols in the museum of the king of Bavaria, one of which is the *Kandek Rao* of MOON'S Pantheon. (The books have not arrived.)

A letter from M. E. BURNOUR, Sec. As. Soc. Paris, 1st November, 1837, announced that the gold medal, struck in honor of Mr. B. H. HODGSON, by the As. Soc. had been entrusted to M. DUBOIS DE JANCIGNY who was about to proceed to India overland.

M. DUBOIS's determination is understood to have been changed—but the medal may be expected by some early French ship.

A letter from the Inland Steam Navigation Company solicited various information regarding the rivers of Bengal.

A letter was read from M. St. HUBERT THEROULDE thanking the members for the attention he had received, for admission to their meetings and library, and other facilities for his studies.

In the instructions he had received from the Institut Royal and the Paris Asiatic Society as to the route he should pursue, he had been referred to the residents in the country to point out to him the best mode of carrying the objects of his journey into execution—he hoped that the Society would therefore still favor him with its counsel and advice. He was about to proceed straight to *Lahore*, there to commence his researches.

The Secretary alluding to the particular introductions brought out by M. THEROULDE from Professor WILSON, Major TROYER, and the Asiatic Society of Paris, proposed as the most effectual way of rendering him assistance and local advice.

That a circular be addressed to members residing in the interior of India stating the objects of M. THEROULDE's journey and recommending this eminent Sanskrit scholar, to their attention and hospitality. Also, that a Sanskrit address to the pandits of *Benares* and elsewhere should be placed in his hands ;—

These two documents were accordingly delivered to M. THEROULDE by the President, with best wishes for the success of his researches.

The Society's account current* was submitted by the Government agents exhibiting 15,000 rupees invested in four per cents. and a cash balance of interest Rs. 900, which had been transferred to the Treasurer's open account.

The account of the English agents was also received for 1837—shewing a balance in hand of £ 32.

£100 had been advanced to complete the payment for the WILSON bust ; but as it had been agreed that this was not to be a charge on the Society's public funds, it was determined to renew the private subscription and make up the sum deficient (rupees 700) on the former subscription. A paper was circulated and the greater part of the money at once raised.

* It is somewhat curious that neither this gentleman nor Sir G. STAUNTON allude to the cause nor the manner of their election in the most remote degree !—ED.

Oriental Publications.

The Secretary read the following letter from Government, with its several enclosures, in reply to the Society's memorial of the 2nd September, 1835.

TO JAMES PRINSEP, Esq.

SIR,

Secretary to the Asiatic Society.

With reference to your letter to this department dated the 21st September 1835, and to the reply dated the 30th of the same month, I am directed by the Honorable the Deputy Governor of Bengal to transmit for the information of the Society the accompanying copy of a letter No. 8, of 1838, from the Honorable the Court of Directors in the public department, dated the 28th March and of its enclosures; and to state that the sum of 500 Company's rupees per month has, from the 18th of June, the date of the receipt of the despatch, been placed at the disposal of the Asiatic Society for employment in the manner indicated by the Honorable Court. The amount will be made payable monthly from the General Treasury on the bills of the Secretary of the Society, countersigned by the President, and duly audited, and at the close of each year an account must be rendered, shewing the manner in which the amount has been expended.

I am, &c.

H. T. PRINSEP,

Fort William, the 20th June, 1838.

Secretary to the Government of Bengal.

Public Department. No. 8, of 1838.

Our Governor of the Presidency of Fort William in Bengal.

PARA. 1. We now reply to your letter in this department dated the 30th September, No. 28, of 1835, in which you forward a memorial from the Asiatic Society of Calcutta, soliciting some pecuniary aid in the expense of publishing standard and useful works in Oriental Literature, that Society having undertaken to complete various works which remained unfinished when the system for the promotion of native education in Bengal was altered.

2. The Society have not applied for any specific sum, but we have received from their agent in Europe, Professor H. H. WILSON two letters (copies of which are herewith forwarded) in which he states that "500 rupees a month will probably suffice in addition to the Society's own funds and the returns which may be expected from the sale of the books."

3. Although the works formerly published may not always have been selected in the most judicious manner, we are still of opinion that the publication of oriental works, and works on instruction in the eastern languages, should not be abandoned; we therefore authorize you to devote a sum not exceeding five hundred rupees a month to the preparation and publication of such works, either through the medium of the Asiatic Society, or any equally appropriate channel, and we shall expect an annual return of the works published and ten copies of each book for distribution in this country.

We also desire that twenty copies of all the works which have been or which may be hereafter published by the Committee of Public Instruction, except the *Fatawa Alemgiri*, of which forty copies have been received, be forwarded to us by the first convenient opportunity.

We are, &c. (Signed,)

J. R. CARNAC, J. L. LUSHINGTON, H. LINDSAY, R. MILES, JNO. MASTER-MANN, JOHN COTTON, P. VANS AGNEW, J. PETTY MUSPRATT, H. SHANK, RUSSELL ELLICE, HENRY WILLOCK, JOHN G. RAVENHAW, GEORGE LYALL.
London, 28th March, 1838.

TO J. C. MELVILL, Esq.

Financial Secretary to the Honorable the Court of Directors.

SIR,

I have to request that you will submit to the Honorable the Court of Directors the following representation which I beg most respectfully to lay before them on the subject of the discontinuance of the assistance hitherto given by their Bengal Government to the publication of works in the languages of the east.

2. In thus offering myself to the notice of the Honorable Court, I trust I may be allowed to plead in excuse the situation which I hold as Professor of one of the principal languages affected by the measure; my intimate relations when in India with learned natives, my office as agent in Europe of the Asiatic Society of Bengal,

the appointment I filled for several years in Calcutta of Junior Member and Secretary of the Committee of Public Instruction, the devotion I still feel to the service of the Company, and the deep interest with which I must ever regard all that affects the happiness and welfare of the people of India, and the credit and prosperity of their rulers.

3. By an order of the Bengal Government dated the 7th March 1835, different works in Arabic and Sanskrit, some original and some translations from English, which were in course of publication by the Committee of Public Instruction, under the previously obtained sanction of the government have been abruptly stopped, although some of them were on the eve of completion. The labour and expense, bestowed on them would therefore have been entirely thrown away if the Asiatic Society of Bengal had not undertaken at their own cost to finish the printing, of the books that had been commenced, as well as to proceed, should their means admit, with others of a similar description. Such works as had previously been printed either wholly* or in part, by the Education Committee being transferred to the Society. The Society at the same time solicited the government for a pecuniary grant in aid of their own limited resources, and this application not having been complied with, they have memorialized the Honorable the Court of Directors to the same effect. The memorial is I presume under the consideration of the Court.

4. In this arrangement I beg to observe that the Indian Government and the Asiatic Society have proceeded upon the notion that the publications in question are connected with the encouragement of Oriental Literature alone, whilst in fact they were undertaken not so much for the general promotion of oriental studies as in subservience to the advancement of native education. They were designed for class-books and prize-books for the native colleges and schools, and were therefore strictly within the province of the Education Committee. The character in which they are to be contemplated is however immaterial, and as long as they are recognized as deserving the patronage of the government, it is possible that that patronage may be conveniently exercised through the instrumentality of the Asiatic Society of Bengal.

5. It must be quite unnecessary for me, I apprehend, to advocate the claims of Oriental Literature to the protection of the Honorable Court. Considered merely as an object of intellectual research which their connexion with the east so peculiarly enables them to favor, they would have disappointed the natural expectations of all Europe if they had displayed less liberality than that which they have always shewn in fostering oriental study. Independently of this consideration the government of British India has a positive duty to discharge in facilitating the acquirement by its servants of the knowledge indispensable to the due performance of their functions in India, and it has an obvious interest in gratifying its native subjects by patronizing that literature which is a part of their national existence, and which is to them now as it has been for ages, an object of admiration and reverence.

6. The liberality, wisdom and policy, and I may add the justice of encouraging native literature in India, must however, I apprehend, be too obvious for me to occupy the time and attention of the Honorable Court in endeavouring to substantiate them. Even the government of India in reply to the address of the Asiatic Society acknowledges the advantage of applying larger sums than are already so applied to the support of native literature, and grounds its non-compliance with the Society's request "on the financial difficulty which limits within narrow bounds the aid to be so afforded."

7. Considering then the principle as recognized, and that it is admitted that Oriental Literature deserves the special encouragement of the British Government of India, it only remains to be inquired why those funds which have hitherto been available for so desirable a purpose should now be withheld. The order of government of the 7th March puts a stop to the printing of oriental books in order that the funds so applied should be thenceforth employed exclusively "in imparting to the native population a knowledge of English Literature and Science through the medium of the English language." However important the end proposed, its exclusiveness is wholly incompatible with the patronage of native talent, with the public declarations of the government of Bengal, with the acts of former governments under the sanction of the home authorities, and with the express intention of the British Legislature in authorizing the appropriation of a part of the Indian Revenue to the encouragement of the literature and learned natives of the country.

* This is a mistake; the unfinished books only were made over, so that there are two depôts of oriental works, an inconvenience which might now be remedied with advantage, by placing the whole together.

8. That effective and judicious instruction in the English language and in European Science in India is an object of the first importance, formed both the theory and the practice of the Education Committee during the whole period in which I was a member of it, and the present rage for its still wider diffusion is nothing more than the indiscreet prosecution of the principle and plans of the committee to extreme and precipitate consequences. The former committee however anxious to promote a well grounded conversancy with English, did not hold it consistent with justice to alienate for this object, grants that had been made to native institutions for very different purposes, nor did they think it equitable or generous to exclude literary natives from all share whatever of that subsequent bounty which was at least in part awarded "for the revival of Native literature and the encouragement of learned natives." But above all, the committee being convinced that no real and permanent impression could be effected on the minds and feelings of the natives of India without their own consent and co-operation, they endeavoured to secure both in whatever measures they adopted for the improvement of the people; and in all their innovations, and they originated many, they were careful to maintain a spirit of considerateness and conciliation. By this line of conduct they new-modelled the course of study in the native colleges, and introduced English classes and established and extended English schools without exciting the slightest indication of jealousy, dissatisfaction or alarm. It was reserved for their successors to arouse the angry remonstrances of the Muhammadans of Calcutta, and to excite the deep though less audibly uttered apprehensions of the Hindus.

9. Whilst then the judicious extension of English instruction unquestionably merits the encouragement of the government of India, it may well be doubted, if it is judicious or just to encourage it exclusively and at the expense of native institutions and native literature. It may be matter of regret that funds sufficiently ample for both objects are not available, but it cannot be equitable or politic to withdraw all support from the older and more strictly national purpose in favour of one of recent date and foreign introduction, especially when there is no urgent necessity for such an alternative. Under the arrangements hitherto adopted both interests were consulted and yet improvement was rapidly progressive. It is very doubtful if the advance that may be made under the change of system will bear any proportion to that which was effected under the first committee of public instruction. No evidence of acceleration has yet been offered. On the contrary, it is certain that the native institutions are languishing under discountenance and neglect, and although the number of English students may possibly have increased, the scale of their attainments has been very much depressed.

10. Under these circumstances then I beg to submit to the wisdom of the Honorable Court the expedience of reverting to the principles and practice of the early Education Committee subject to such modifications only as are unavoidable or desirable. In this case the specific endowments of the Madressa, of the Sanskrit Colleges of Calcutta and Benares and of the mixed colleges of Agra and Delhi, will be held sacred, and will be exclusively appropriated to education in the native languages and literature. The expense of the English classes which have been attached to them will be defrayed from other sources, and the cost of books in the oriental languages with which they have been hitherto supplied from the general fund may then be provided for out of the funds with which they are severally endowed. They will thus contribute to the support of the native press which will be an article of expenditure strictly within the scope of their foundation. To divert their funds to other purposes than those for which they were expressly bestowed, or for English tuition, is likely to produce more evil than good. The command of a few thousand rupees obtained by what the natives will consider an act of spoliation will work no advantage equivalent to the mischief of creating a distrust in the durability of public endowments,—in the inviolability of British faith.

11. As the management of the Oriental Press may not be unfitly exercised by the Asiatic Society of Bengal, and as the Education Committee may be conveniently relieved of the labour, the transfer of this business the Honorable Court may perhaps see reason to confirm; but I am satisfied that they will not consider it expedient to leave the fulfilment of an useful public service to the unassisted resources of a Society depending upon private and fluctuating contributions. The application of the Society will therefore, I venture to hope, receive the favorable consideration of the Honorable Court; and pecuniary aid be authorized if it be not of an extent or nature incompatible with the state of the public finances. I have no authority to suggest any specific amount; and the Society will no doubt be thankful for whatever aid the court may be pleased to sanction; but, judging from the average expenditure of past years, about 6000 rupees a year, or 500 rupees a month, will probably suffice in addition to the Society's own funds, and the returns which may be expected from

the sale of the books, to print by degrees many of the most approved works in the classical and vernacular languages of India, and to remunerate learned natives for their services as authors and editors. It cannot I think be regarded as unreasonable to expect that this small sum may be deducted from the annual grant of a lac of rupees, since it cannot be denied that the act of parliament contemplated in part if not wholly a provision for the encouragement of learned natives and the revival of native literature, terms that can by no possible construction be interpreted as applicable to the introduction of English alone. The trifling abstraction of the sum I have suggested will be thought by all impartial persons much less than native literature, strictly so called, is legally entitled to, but it may be accepted as adequate to the specific purpose for which it is required, and it will satisfy the natives that their interests have not been altogether despised. With regard to the annual appropriation also the deduction will be more nominal than real. Under the former management of the funds of the committee the lac of rupees was never wholly expended, and an accumulation took place which when I left India placed an additional 20,000 rupees per annum at the committee's disposal. This can scarcely have been since appropriated or expended, and a fund should therefore exist from which 6000 rupees a year can be disbursed and yet a lac of rupees and more may be annually laid out upon English tuition if such a disbursement for that purpose be considered expedient.

12. With regard to translations and compilations from English in the native languages, these are so obviously and intimately connected with the actual progress of education, that they will be best left under the superintendence of the Education Committee. If transferred to the charge of the Society however, the expense should be borne by the general fund according to the circumstances of the rules and the resolutions of the Education Committee.

13. There is but one other point upon which I beg briefly to trouble the Court; the scholarships of the native colleges which have been prospectively abolished by the Government order of the 7th of March. If the native endowments are not alienated the chief object of the abolition of the scholarships the diversion of the money, so applied hitherto, to the future extension of English education will no longer be a plea for such a measure—a measure that is a virtual abolition of all native institutions. I can assure the Honorable Court that this question of stipendiary allowances to native students in the government seminaries was very fully discussed by the members of the committee of public instruction upon its first formation, and that they were generally opposed to the principle of paying young men to induce them to accept of gratuitous education. When examined in all its bearings however and with reference to the extreme poverty of the literary classes, the distance from which many of the students came, the desirableness of attracting students from the country to the seats of Government, and their utter want of means of maintaining themselves when away from home, the principles and practice of all the native Governments which invariably combined subsistence and education, and the prejudices of the people, which attach discredit to all but eleemosynary instruction, the committee came to the determination that it was indispensable in the present condition of society in India to continue stipendiary allowances to the scholars at the public institutions; at the same time they limited such allowances to an amount merely adequate to provide for the necessary wants of the student, and they endeavoured to encourage the resort of students who would dispense with the provision. A reference to the rolls of the several native Colleges will shew that the stipends are very moderate and that there are a number of students who receive no pay. The reports of the college committees will also shew what is the real character of these unpaid students, and that from the extreme irregularity of their attendance they reap from it but little benefit: greater punctuality cannot be enforced by any penalty short of dismissal and that it is an award which cannot in common charity be hastily pronounced; the scholars cannot attend, because they must live; part of their time is taken up in obtaining subsistence from the liberality of their countrymen, or in plain words in begging—a practice ill calculated to elevate their moral or intellectual character, but one which is the chief resource of poor scholars in the east, as it was some centuries ago in Europe. As most of these unpaid scholars also attend in the hope of succeeding to vacant scholarships, if the latter were abolished the former would soon disappear. However reasonable therefore the principle of separating maintenance from education it is certainly incapable of being applied to practice in India. The government has been obliged to admit this in the new medical institution, and has granted stipends to the students which are no doubt much more considerable than those which are allowed to the pupils of the Madressa and Sanskrit College. I apprehend too that the scholarships of the Hindi or Anglo-Indian College held by the native students of the English language will be continued, as they most unquestionably ought to be, and the



native inference will be that partiality, not principle, has dictated the difference. But the general principle of this case is rigidly enforced no where;—assuredly not in this country, where at its Universities of Oxford and Cambridge numerous endowments of scholarships and exhibitions enable young men to follow a course of study which would else be beyond their attainment. Why are the native youth of British India to be denied a similar provision? They must be ill acquainted with the country who say that they do not need it, and why should talent be precluded from the chance of distinction because its professor is poor in India alone and under a British administration? I must therefore in the name of the youth of India, Muhammadan or Hindu, most earnestly entreat the court to withhold their sanction from a measure which proposes if not a doubtful yet a very scant good, which will inflict a severe blow upon the prospects of the rising generation, and will be viewed as ungenerous and unjust by the most respectable and influential classes of the people of India.

I have, &c.

(Signed) H. H. WILSON,

Oxford, 5th March, 1836.

*Boden Professor of Sanskrit in the University of Oxford
and Agent in Europe for the Asiatic Society of Bengal.*

TO J. C. MELVILL, Esq.

SIR,

In the early part of last year I had the honor to address the Hon'ble the Court of Directors on the subject and in support of a memorial which should have reached them about the same time from the Asiatic Society of Bengal. As no reply has been yet received by the Society I beg permission respectfully to recal the correspondence to the recollection of the court, and to express my hope that the memorial of the Asiatic Society may receive their favorable consideration.

The object of the Society's application was to solicit the sanction of the Honorable Court to the grant by the Bengal Government of some pecuniary aid in the expense of publishing standard and useful works in Oriental literature. It will be in the recollection of the Court that upon a change of the members of the Committee of Public Instruction in 1834-35 the Government of Bengal was induced by their representations to resolve that the encouragement formerly granted to native literature should be withdrawn at once, and the funds employed upon that object be appropriated exclusively to instruction in English. Consequent upon this resolution the printing of several works in Arabic and Sanskrit original or translations and of which some were nearly completed, was relinquished, and would in their unfinished state have been worthless, if the Society had not interposed and undertaken their completion, expressing, at the same time, a hope that with reference to the limited funds at their disposal they would be aided with some assistance by the Government. With such aid they proposed not only to finish the books which had been commenced but to proceed with the work and print from time to time the most celebrated compositions in the literature of India. The government in reply admitted the desirableness of the proposal, but pleaded the state of the finances as a reason for declining to comply with the request. The Society consequently appealed to the liberality of the Honorable Court, proceeding in the meanwhile at their own risk and cost with the task which they had undertaken.

The considerations which should induce an enlightened government like that of British India to encourage to a reasonable extent the literature of the East, and preserve it by means of the press from decay have always been fully appreciated by the Court. It is unnecessary therefore to urge them upon its attention. I would only beg permission to observe, that in the communications which have taken place with the Asiatic Societies of Bengal and Great Britain on this subject, it has been mixed up with a question on which it is to be feared an irreconcilable diversity of opinion prevails,—the course that should be followed in the education of the people of India. There is however no very intimate connexion between the two, and the publication of the most esteemed writings of the east for the use as much of Europeans as Asiatics need not in any way interfere with the widest possible dissemination of the English language in India. The duty being transferred to the Asiatic Society will not embarrass the operations of the Committee, and the amount of the pecuniary aid which would enable the Society to proceed with its publications would be too inconsiderable to be a sensible diversion of funds that would be else applicable to the charge of public education. I should hope therefore, that the question of encouragement to the printing of Standard Oriental works to an extent compatible with a due regard to public economy will be considered as not necessarily

involved in that of native education, and will be thought entitled, on its own grounds to the attention of the Honorable Court.

I have, &c.

(Signed) H. H. WILSON.

Agent in England for the Asiatic Society of Bengal.

London, 26th November, 1887.

The President congratulated the Society on the success of their application to the Court, which was evidently attributable to the strong appeals, especially the second, from their agent Professor WILSON. He regretted that in the first address to the Court Prof. WILSON had mixed up the two questions of education and of Oriental Literature which the Society had purposely kept distinct. He was totally at variance with the Professor's arguments in the first, and could even contradict many of his assumptions, but he was glad to see that the impediments to the Court's compliance with the memorial, evidently caused by his mixture of two questions, had been skilfully removed by his second letter: he thought Professor WILSON had done great service to the Society, and he concluded by voting, and it was by acclamation

Resolved, that the thanks of the Asiatic Society be offered to Professor WILSON for having used his best exertions for obtaining a grant from the British Indian Government for the publication of oriental works and works of instruction in the eastern languages through the medium of the Asiatic Society.

The Secretary regretted also on one account that Dr. WILSON's second letter had not been the first sent in, as in that case the boon might have come at least a year earlier, whereas now it might be doubtful whether it could be properly applied to the debt which had accumulated in the interim. He had, as stipulated at first with the Society, conducted the oriental printing as a separate account, and was in advance from his own funds 2000 rupees, and the fourth volume of the Mahābhārata which was nearly completed would put him 4000 more out of pocket. Upon this explanation it was

Proposed by Sir EDWARD RYAN, seconded by the Lord Bishop, and carried *nem. con.*

That the Secretary be authorized to address the Society's acknowledgments to Government for the monthly sum which, under the Honorable Court's sanction, had been placed at its disposal for oriental publications, and to explain what had been done pending the application home, expressing a hope, with reference to the excess of expenditure incurred, that the date of the grant (left open by the Court's dispatch) may be fixed so as to provide arrears to meet the Secretary's outlay, or to permit the grant in prospective to be applied, partially or wholly in the first instance, to clear off the debt.

Read a letter from Mr. MUIR, proposing to transfer the 1000 rupees lately offered through the School Book Society, as a premium for an essay on the advantages of science, to the Asiatic Society in order to promote the publication of the *Sārira Vidya*, a Sanskrit translation of HOOPER's Anatomist's Vade Mecum, by MADHU SU'DANA GUPTA.

The Secretary explained that this was one of the unfinished works transferred to the Society; that the author on completion of the translation received 1000 for the manuscript from the committee as previously agreed, he had the option of giving a fair copy, or printing; the pandit preferred the latter, and two-half sheets had been printed off at the time of the suspension order. Finding so much had to be done in re-writing the manuscript which was yet in a crude state, he had abandoned all thoughts of completing this work, much as it would contribute to a knowledge of that most useful science, the structure of the human frame, among the native medical practitioners who are all over the country instructed in Sanskrit alone. On this inquiry however from Mr. MUIR (and it was not the only one) regarding the progress and

chance of completing the work, he had had some conversation with the author, who had expressed his readiness to revise and edit it, with additions from late works, such as QUIN's Anatomy and the Dublin Dissector with which he had become acquainted at the Medical College. He strongly advised the publication of the plates also from PAXTON's or QUIN's work. Supposing the work to contain 600 pages, the cost of printing the text may be rupees 3000; and the plates in wood cuts, say, 1000; and the time occupied in passing through the press would not fall short of two years. The author would prefer a remuneration for correcting the press say at eight annas a page, to receiving a portion of the printed edition. But the whole expense of the work would not much exceed 4000 rupees, out of which Mr. MUIR's donation would cover one-fourth.

Professor O'SHAUGHNESSY objected to the selection of this Vade Mecum for translation, as greatly inferior to other works for teaching the rudiments of anatomy to the natives,—and after some discussion it was

Resolved, that the question of publishing a Sanskrit edition of HOOPER's Vade Mecum be referred to Drs. WALLICH, O'SHAUGHNESSY, EVANS, SPRY and EGERTON, as a Committee, with liberty to add to their number.

The Secretary mentioned other works which he proposed to undertake on the strength of the Government grant, but it was agreed that the list should in the first instance pass through the Committee of papers, to whom was also referred a proposition by Mr. CURNIN, whether it would not be expedient with the 500 rupees per mensem for the Society to establish an oriental press of its own.

Read a letter from Messrs. W. THACKER and Co., forwarding a specimen of a translation of the Alif Leila, by Mr. H. TORRENS, C. S. and soliciting the same degree of patronage as had been accorded in 1836, to the Arabic text.

The first volume of translation, with notes, would be published in the course of August next, and one volume of the Asiatic text was also ready for issue—the price of the English volume would be eight rupees. With reference to the strong hope expressed in the former reply from Government that the Society would be able to provide for the translation of the Macan manuscript by a competent scholar of the presidency, (see vol. V. page 753) it was—

Resolved, that the specimens be submitted to Government, with the Society's confident anticipation that Mr. TORRENS' translation would merit the patronage pledged in the reply of Mr. Secretary Prinsep, dated 2nd Nov. 1836.

Library.

The following books were presented :

By RĀJA RA'DHA'KA'NTA DEVA,—the fourth volume of his Sanskrit Lexicon, the *Shabda Kalpa Druma*.

By Mr. CALDECOTT, Astronomer to the rāja of Travancore,—the *Trevandrum Almanac* for 1838, an astronomical ephemeris compiled and printed at his observatory.

The *Madras Journal of Literature and Science*,—by Dr. Cole, Editor.

India Review and Journal of Foreign Science and Arts, Edited by FREDERICK CORBYN, Esq. Vols. I. II. Calcutta, 1837-38,—by the Editor.

Capt. JENKINS presented some school-books, the first fruits of the Missionary Press at Sadiya in Assam.

The *Meteorological Register* for May,—by the Surveyor General.

The following were received from Europe.

An *Essay on the Antiquity of Hindu Medicine*, &c. by J. P. ROYLE, London, 1837,—from the Author.

The *Journal of the Royal Asiatic Society of Great Britain and Ireland*, No. 8, December, 1837,—presented by the Royal Asiatic Society.

Transactions of the Geological Society of London, Second Series, Vol. V. part I. 1838, and Proceedings, Vol. II. 1837-38, Nos. 52, 53,—by the Geological Society.

The following from the booksellers.

PRICHARDS' Researches into the Physical History of Mankind, 3rd Edition, Vols. I. II. London, 1836-37.

Lardner's Cabinet Cyclopædia, Biography of Eminent British Statesmen, Vol. IV. Natural History, Animals in Menageries, Vol. I.

Statistical Committee.

Dr. DUNCAN STEWART, acquainted the Society that he had resigned the Secretarial duties, papers and library of the Statistical Committee into the hands of Dr. SPRY.

Since the death of Sir B. MALKIN and the departure of Mr. WALTERS the Committee had been without a president, and the number of members was reduced to eight. No papers were yet in a state for presentation, but Dr. SPRY hoped to have some interesting documents tabulated in a few months—Dr. STEWART's contingent bill, rupees 234, was passed.

Antiquities.

A letter from H. TORRENS, Esq., Officiating Secretary to Government, announced that orders had been given for the conveyance to the Society's Museum of the inscribed portion of the mutilated *Delhi Lât*.

Captain T. S. BURT's beautiful facsimiles (or ectypes) of the FERÖZ lât, and *Delhi* iron pillar, were exhibited.

[We shall take an early opportunity of mentioning the corrections they produce in former readings.]

A letter from Lieut. POSTANS to the Secretary on his reaching *Girnar*, confirmed the conjectures of the latter as to the reading of the name next to that of PROTEMY in the fourteenth edict,—which was clearly *Antigono* (for ANTIGONUS) and the next name *Mago* (not *Magô*).

Lieut. POSTANS was searching for the fragment of rock, containing the rest of this inscription, which had evidently been blasted off to mend a neighbouring pavement! his labours of copying were nearly completed when he was summoned as interpreter on a distant court martial. There still remains enough of inquiry, planning and exploring to occupy this zealous young officer during a second visit in the approaching cold season, which he hopes to be permitted to accomplish.

PHYSICAL DEPARTMENT.

Tidal Observations.

The following letter from Mr. Secretary PRINSEP, was read, forwarding a dispatch from the Honorable Court of Directors on the subject of the Tides in the Indian Ocean.

To J. PRINSEP, Esq.

Secretary to the Asiatic Society.

SIR,

I am directed by the Honorable the President in Council to transmit to you the accompanying copy of a letter No. 1, of 1838, from the Honorable the Court of Directors in the public department, dated 24th January, with its enclosures, and to inquire what particular stations the managers of the Asiatic Society would deem most expedient at which to make the observations indicated in this correspondence, and whether there is any particular form or period that occurs at which to make the observations with most advantage. His Honor in Council will also feel obliged if the Asiatic Society can intimate to the Government any persons with whom they are in correspondence on scientific subjects, through whom to make the desired observations.

I am, &c.

H. T. PRINSEP,

Secretary to the Government of India.

Council Chamber, the 20th June, 1838.

Public Department. No. 1, of 1838.

Our Governor General of India in Council.

PARA. I. We forward to you copy of a memorandum by the Rev. W. WHEWELL a Vice-President of the Royal Society, from which it appears that great service may be rendered to science by means of tide observations upon the several coasts of the East Indies, and that the knowledge thus obtained would be at the same time a valuable acquisition for the purposes of hydrography and navigation.

2. We transmit in the packet proper forms and instructions for registering the tide observations, and we direct that you issue the necessary orders to the local authorities in India to conduct the observations in accordance with such memorandum and instructions, and to transmit the result periodically to us.

We are, &c.

(Signed),

J. R. CARNAC, J. L. LUSHINGTON, H. LINDSAY, JNO. MASTERMAN, RD. JENKINS, JOHN LOCH, C. MILLS, JOHN COTTON, P. VANS AGNEW, J. PETTY MUSPRATT, H. SHANK, JOHN G. RAVENSHAW, H. ST. G. TUCKER.

London, the 24th January, 1838.

Memorandum respecting Tide Observations. By the Rev. W. WHEWELL, Cambridge.

A great service might be rendered to science by means of Tide Observations made by order of the East India Company upon coasts of their territory, and the knowledge thus obtained would be at the same time a valuable acquisition for the purposes of hydrography and navigation.

There are no good observations of the tides of the Indian Coasts, so far as I am aware, with the exception of about a year's observations made at Singapore by order of the directors, which turned out of extraordinary value and interest*. If the tides were observed for a fortnight at a series of points along the coast, we should be able to trace the progress of the tide-wave in those parts of the ocean, and if observations for a longer period were made at places where there is a marine establishment, good tide tables might be calculated, and other important theoretical and practical results obtained.

Instructions and forms for registering such observations may be had by application to the Hydrographer at the admiralty if desired.

London, December 22nd, 1837.

Second Memorandum.

The tide observations which the Court of Directors has resolved on instituting will not only serve the beneficial purpose of ascertaining the Tide establishments along the coast of India upon a consistent basis with each other, but will also give the most important assistance to those philosophers who are now engaged in the investigation of the theory of the tides.

For the former purpose it will be sufficient if for three or four months simultaneously, in as many places as may be practicable, a register be kept of the times of high and low water by day and night, and of the heights as shewn upon a staff to which the tides rise and fall. The only difficulty in these observations will be the selection of proper places as much as possible sheltered from the external swell of the sea, and to which convenient access may be had at all times for the observer. And, secondly, the accuracy of the watches or clocks employed, which should be duly adjusted to mean time. For the latter and higher purpose, it would be desirable to have a tide gauge constructed and if possible, upon a self-registering principle. The waters should be admitted only through small holes in the bottom of the tube or trunk so as to resist the action of the swell, and yet so as not to be choked by weeds or mud, and the tube should be fixed precisely perpendicular. The float, of cork or hollow copper, should move without friction, and the rod should be so varnished as to prevent any change in its specific gravity for imbibing the water.

Any ingenious workman will find it easy to make this rod carry up and down two small sliding pieces, which shall retain their maximum and minimum positions and thus register the rise and fall.

In fixing this machine it will be of little consequence where the nominal zero is placed, provided its precise level is referred to some known and permanent point on the shore, with which subsequent observations can be compared. The heights however are of secondary importance, the principal object required being the exact periods or times of high and low water, and therefore great attention should be paid to ascertaining the rate of the clock or watch, for which purpose a small transit in-

* These are printed in the As. Res. vol xix.

strument should be erected or equal altitudes of the sun should be daily observed and the equation of time carefully applied.

A groundplan of the adjacent shore should accompany the register, shewing its place. And as the times and heights of the tides are much influenced by the prevailing winds and weather, a table containing a brief method of expressing them is hereto annexed, also a blank form shewing the mode in which the observations should be registered, and it is strongly recommended that they should be entered the moment they are made, so as to avoid any reliance on the memory.

For the more elaborate observations, a few stations will be sufficient, and probably the following places will afford eligible spots for planting the gauges.

Some port in the Gulf of Cutch:—Bombay:—some port near Cape Comorin:—some port near the head of the Bay of Bengal:—some port on the Coast of Ava:—Prince of Wales Island:—Singapore:—Macao. And it would also be very desirable to have a station in the Red Sea, and another in the Gulf of Persia. These Registers should be continued for at least fifteen months, whereas 3 or 4 months will be a sufficient period for the slighter observations first described, but then their places cannot be too much multiplied, and perhaps it would be advisable to repeat them during the opposite monsoon.

(Signed) F. B.

2nd February, 1839.

FORM OF OBSERVATIONS.

Register of Tides, observed at _____ in the month of _____ 183 .

Date.	High Water.		Low Water.		Range.	Wind.		Turn of Stream.*		Observed.
	Time—Height.	h. m.	Time—Height.	h. m.		Direction—Force.		Flood—Ebb.		
								h. m.	h. m.	

Figures to denote the Force of the Wind.

0	Calm.									
1	Light air,					Or just sufficient to give steerage way.				
2	Light breeze,					Or, that in which a well conditioned man of war with all sail set, and clean full, would go in smooth water from,		1 to 2 knots.		
3	Gentle breeze,							3 to 4 knots.		
4	Moderate breeze,							5 to 6 knots.		
5	Fresh breeze,							Royals, &c.		
6	Strong breeze,					Or, that to which she could just carry in chase full and by,		Single-reefed topsails and topgallant sails.		
7	Moderate gale,							Double-reefed topsails, jib, &c.		
8	Fresh gale,							Triple-reefed topsails, &c.		
9	Strong gale,							Close-reefed topsails and courses.		
10	Whole gale,					Or, that with which she could scarcely bear close-reefed main-topsail and reefed foresail.				
11	Storm,					Or, that which would reduce her to storm-staysails.				
12	Hurricane,					Or, that which no canvas could withstand.				

If the above mode of expression were adopted, the state of the wind might be regularly marked, every hour, in a narrow column on the log-board.

Letters to denote the state of the Weather.

b—Blue sky; whether with clear or hazy atmosphere.

c—Cloudy; but detached opening clouds.

d—Drizzling rain.

f—Foggy f thick fog.

g—Gloomy dark weather.

* By the turn of the stream is not meant the turn of the inshore tide, but the turn of the flood and ebb streams, when off shore or in the anchoring roads. This may be perceived from the tending of the vessels at anchor or their buoys in calm weather. If there are neither vessels nor buoys, a small substitute might easily be secured in a proper place for the purpose.

† If several persons have been employed, put their initials in this column, and the names at length in next page.

- h*—Hail.
l—Lightning.
m—Misty hazy atmosphere.
o—Overcast; the whole sky being covered with an impervious cloud.
p—Passing temporary showers.
q—Squally.
r—Rain, continued rain.
s—Snow.
t—Thunder.
u—Ugly threatening appearance of the weather.
v—Visibility of distant objects, whether the sky be cloudy or not.
w—Wet dew.

A dot under any letter, indicates an extraordinary degree.

By the combination of these letters, all the ordinary phenomena of the weather may be recorded with facility and brevity. Examples: *bcm*, blue sky, with detached opening clouds, and a hazy atmosphere; *gn*, gloomy dark weather, but distant objects remarkably visible; *q. p d l t*, very hard squalls, with passing showers of drizzle, and accompanied by lightning with very heavy thunder.

F. B.

The Secretary explained that he had in June last, in communication with Lord AUCKLAND as Patron of the Society, addressed a circular to members and to public authorities on the coasts of India, Ceylon, Mauritius, Java, &c., to which returns were now daily arriving. The following report-progress contained all the information he was yet able to offer.

"Lieut. SIDDONS, Engineers, immediately undertook to make the observations at Chittagong for July and October, (both of which were printed in the Journal.) Those for January, which he had intended also to take in the *Tek Naaf*, he discontinued on finding that Mr. ELSON the Harbour Master had been directed to do the same thing by the Marine Board, and that officer possessed naturally the means of doing it more effectually than himself.

He reported that "there are no individuals resident on the coast between Chittagong and Akyab, capable of taking observations now that the custom house choki has been done away with at COXE's bazar, near Ramoo."

From Ramri and Akyab, no return has been yet received, but Lieut. PHAYRE and Lieut. MARTIN of the Engineers, will if opportunity is afforded, collect the requisite information at these important points.

From Maulmain (as stated at the last meeting), Mr. Commissioner BLUNDELL has returned observations of the tides near Amherst Town taken by Captain CORBIN from the 8th to the 15th of November, 1837, and a second series from the 26th of December to the 1st February, 1838. Also a register kept by Captain McLEOD, off the wharf at Mergui, from the 3rd October to the 2nd November, 1837, and from the 15th January to the 1st February: and a second series taken on King's Island in a more open situation from the 31st December to the 1st February.

All of the latter are forwarded both as observed and as corrected for time; for the principal difficulty consists in the providing native observers with the means of taking the time correctly. Captain McLEOD devoted one watch to the object, noting its errors from time to time by his own regulated timepiece.

Mr. W. T. LEWIS of Malacca, wrote: "I shall have much pleasure in attending to your wishes regarding the observations of the tides, but as I should like to do it properly I must have a little more time to attend to it; my living in the country is not convenient for it but I propose to arrange matters so as to have it done correctly."

From Singapore, Capt. SCOTT wrote me his views in considerable detail. One year's observations at this port were published in the Society's Researches; they are alluded to in Professor WHEWELL's note, as very valuable.

Capt. SCOTT had also forwarded on my letter to Batavia, whence I received a polite reply from the Secretary to the Literary Society, who stated that the circular would be translated into Dutch, and printed for circulation to competent observers all round the coast of Java. Meantime he forwarded a series of observations made in Batavia roads during the years 1835 and 1836.

Pursuing now the coast of India proper, Mr. C. B. GREENLAW, Secretary of the Marine Board has placed in my hands a very complete series of daily observations for 1834 kept at Balasore and at its seaward point Bulramghurry by the late master attendant Mr. ALFRED BOND.

In July, 1837, the Marine Board directed Mr. SMITH in charge of the light-house at False Point to keep a register of the tides; which has now been placed at my dis-

posal; it commences with the 15th July, and is brought up to the end of March, 1838.

At *Madras* the circular were sent by Dr. BANNISTER to the proper quarters, and Mr. TAYLOR the astronomer was consulted on the subject. It was also reprinted in Dr. COLE'S *Journal*. There was stated to be "a very serious difficulty in taking observations of the sort with precision in such a surf as that off *Madras* without going to considerable expense. Other points of the coast at the entrance of large rivers might afford more facilities, and the master attendant, Capt. DALRYMPLE, would take advantage of these should this be the case, for he felt a great interest in the business."

From *Pondicherry*, I received through M. BÉDIER, a scheme of operations planned by the marine superintendent of that port to obtain results that might be suited to the rigid investigation of the tidal wave theory, but the expense of conducting them on such a scale was so large that the Governor of *Pondicherry* fortunately made a reference before sanctioning their commencement. In reply I expressed my opinion that simpler and cheaper means would suffice to obtain the general facts of the time of the ebb and flow, and of high and low water, even if it were impossible to measure the rise and fall with great accuracy. I have hitherto no further information from this quarter.

By Sir R. W. HORTON, Governor of *Ceylon* the investigation was taken up vigorously, and I have just received from the Honorable Mr. ANSTRUTHER Colonial Secretary, the following returns:—

Trincomalee registers kept by the master attendant for January, April, July, and October, 1836, and from the 24th November to the 2nd December, 1834, the greatest known tide at that place.

At *Jaffna*, *Putlam*, and *Colombo*, attempts had hitherto failed, but the master attendant Mr. J. STEWART at the latter place had constructed a reservoir in the new wharf which he expected would give satisfactory results. This was realized in March, April, May, 1838, for which a table is sent.

From *Galle*, Mr. TWYNAM, master attendant, furnished a continuous register from 16th October, 1837, to 15th April, 1838.

At *Manar*, Mr. WEBSTER reported his inability to make the requisite observations.

From *Bombay*, Mr. WATHEN, the chief secretary to Government replied on the 11th July: that he had, "done the needful with your circulars and will send some up to Captain HENWELL and officers of the Indian Navy in the Persian Gulf, as also to the Red Sea. Sir CHARLES MALCOLM had taken possession of some, in order to carry the object into more complete effect.

At the *Mauritius*, M. JULES DESJARDINS informed me that registers of the tides had been regularly taken, and transmitted home direct to Professor WHEWELL.

From *Bourbon*, M. BÉDIER kindly undertook to procure observations and I have no doubt I shall receive them in due time.

The year being not yet concluded it is too soon to expect returns from distant stations, but I have little doubt that the object has been taken up zealously in many places on the coast of India besides those I have mentioned, and that the results will soon be flowing in. Meanwhile I propose printing the present letter from the Honorable Court with its enclosures, and the form of register, and circulating them to the same parties as were before addressed, adding *China* and *Manilla* (as we have now a member at the latter place) to the list. It may be also desirable to obtain the leave of Government to authorize each party undertaking the job at the principal points to spend as far as some specific sum, say 100 rupees, in the preparation of gauges, &c. and the wages of an observer."

Resolved, that the above report be communicated to Government, and the further measures recommended for adoption.

Geology.

Specimens of coal from various sites near the Indus, discovered through Captain BURNES' emissaries were deposited by the Secretary, together with the report of the Coal Committee.

Also, specimens of the rich mine of bituminous coal, lately discovered by Dr. HELPER, in the Tenasserim province, and a copy of his report.

And the copper pyrites of *Kemaen* sent down for examination by Captain DRUMMOND.

An account of the geology of the val^{ley} of *Koh-i-Dáman*, and the *Hindu Kúsh* mountains by Dr. LOWN attached to Captain BURNES' Mission, was communicated by Government.

[This interesting paper is printed in the present number.]